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In Recognition of the Retiring Editor of *LRTS*: Paul S. Dunkin

With Esther Piercy's death in January of 1967, *Library Resources & Technical Services* was of necessity propelled into a new era. Under Esther's personal guidance and her gentle, yet firm, touch, *LRTS* had been established as a respected journal of librarianship. Any successor to a founding editor, especially an editor such as Esther had been, is fated to encounter the most difficult, perhaps, of all journalistic tasks: to maintain the growth and development essential to the health of the publication, but to "wean" it, as well, from dependence upon just one person.

This task fell to Paul S. Dunkin, Esther's longtime friend and a respected librarian, educator, and author in his own right. Paul shared Esther's goals for *LRTS*, but he also recognized that *LRTS* ought to become the full responsibility of the Resources and Technical Services Division of the American Library Association, not merely of its editor or even of its Editorial Board. In particular, Paul felt acutely the need to involve the younger members of the division in the life of *LRTS*. With this in mind, he selected a vital young Assistant to the Editor in Robert Wedgeworth; and he encouraged the four Assistant Editors to assume full responsibility for the articles which they were to see through to publication. Although such a procedure is sometimes a risky one, he seemed to understand that it was necessary if *LRTS* were truly to "come of age."

The four years since 1967 have probably not been sufficiently long to allow Paul to impress his own personality indelibly upon the RTSD journal. His stamp is subtly discernible, however, for under his guidance *LRTS* has become a little more flexible, perhaps even a little less self-conscious. Few readers will have noticed any major change in editorial policy, although a new format is now in evidence. The difference can possibly be best expressed by noting that *LRTS* at present clearly has a "life of its own." It will continue to require the services of a sympathetic and attentive editor, as Paul Dunkin has been, but no longer will a change of editor be a cause for alarm in RTSD.

The service which a founding editor renders is normally recognized explicitly, as Esther's was in the memorial issues of *LRTS* for Summer and Fall of 1967. The contributions of a "transitional editor" are seldom recognized in the same way. Paul Dunkin has been a fine transitional editor for *LRTS*. His guidance and expertise should be noted by the division which he has served so faithfully.

Hereby, then, RTSD offers Paul S. Dunkin, second editor of *Library*

Resources & Technical Services, 1967-1971, its gratitude for carrying out a difficult task successfully. Perhaps no greater compliment can be paid than to say, "Esther would have been proud of you and of *LRTS* under your editorship."

By Doralyn J. Hickey
(formerly Managing Editor, *LRTS*)

For the Board of Directors of the Resources and Technical Services Division, American Library Association.

Selective Survey of MARC Literature

JOAN STOCKARD
*School of Library Science
Simmons College
Boston, Massachusetts*

Significant nonduplicative literature on MARC and BNB-MARC is surveyed and characterized. Time lag in publication and the proliferation of ephemera are noted. Two categories of the literature are identified: reports in many formats by individuals and groups associated officially with MARC, and publications of MARC users or observers. In the first category, relationships between citations are shown: statements of purpose, work-in-progress and interim reports, narrowly focused in-depth treatments, or definitive reports. User-generated literature, the second category, is shown to be fragmentary and concerned chiefly with describing local experience. This category of the literature is growing, however, and will require coordination through comparative and evaluative commentary.

WHEN THE LIBRARY OF CONGRESS initiated the MARC Distribution Service in the spring of 1969, there no longer remained any question as to the feasibility of the communication of bibliographic data in machine-readable form. While there is still considerable evolutionary work concerning formatting details and record content in progress, increasing concentration will be centered on the uses to be made of the data. At this juncture in time, when the Distribution Service is operational and when some subscribers are beginning to make public results of their individual implementations, it is appropriate to examine the literature documenting the MARC experience to date. The goal here is to be selective, to characterize and relate nonduplicative publications which contribute to conceptual and practical understanding of MARC, and further, to discuss primarily those publications which are reasonably accessible to an investigator. The Library Education Experimental Project (LEEP) at the School of Library Science, Syracuse University, has established a comprehensive MARC library, and a bibliography is available to interested persons who wish a more enumerative treatment of the literature.³⁴ To sharpen the focus on a manageable group of significant publications, myriad citations to material which is related to, but not focused on MARC will be omitted. A sense of the relationship of the strand of MARC to the fabric of library automation is conveyed by Charlotte Mason's "Bibliography of Library Automation" which provides coverage through publications of 1968.³⁹

Characteristics and Categories

Two general characteristics of the MARC literature are particularly striking. For every hard- or softcover printed publication and every periodical article, there are a number of near print or processed ephemeral limited-circulation reports, drafts, or memoranda which are not readily available. The second characteristic is the time lag, often a year or more, between working decisions and accessible publications concerning these decisions. Typical are the MARC manuals used by LC.⁵⁶ Although an early printed edition was made available as expeditiously as possible through ALA, subscribers to the MARC Distribution Service soon were hurried to updated versions not easily available to nonsubscribers. In science literature these characteristics are not of course uncommon, but they may prove a bit unsettling in the usually more pedestrian world of librarianship.

Since it is basic to the nature of MARC that it is a communications format both requiring and encouraging local manipulation, there are two clear categories of MARC literature: publications by authors officially connected with the production of MARC tapes, and publications by users of the MARC product. Both categories suffer in varying degrees from the two characteristics of time lag and difficult access. The larger category, reports and articles by authors officially connected with MARC, suffers especially from these problems.

In the Beginning

MARC's enlivening spark was the technical report of Lawrence Buckland which identified the elements of a catalog entry that would need to be distinguished explicitly for machine use and suggested methods for encoding bibliographic data.¹⁹ With the encouragement of the library community, which was consulted frequently, investigation was carried forward. A comprehensive Planning Memorandum from LC's Information Systems Office suggested a format for machine-readable catalog records.⁵⁹ On the strength of response to this memorandum, a grant from the Council on Library Resources was made available for a pilot project, dubbed MARC, to investigate the feasibility of distributing LC catalog data in machine-readable form to users outside the Library. This enterprise was conceived of as the first operational module in a fully integrated LC automated system. The concern of the project with the conversion of bibliographic records to a form which can be manipulated by machine was basic to the feasibility of the entire system, as the important King report, *Automation and the Library of Congress*, had stressed.³⁰

Explicit identification of catalog data elements called for by Buckland appeared in the final report of a subcommittee of the United States of America Standards Institute (now renamed the American National Standards Institute) in May 1967.²⁴ By the time this publication was available, of course, the information it contained had been in use for approximately a year, just as were the related facts reported to a

larger audience of librarians in an article in *Library Quarterly* for April 1967.¹² This article described the selection of a sample of LC catalog cards and the analysis of the frequency of the occurrence of characteristics such as the number of places of publication used in imprints or the type of main entries employed.

Reports on the MARC Pilot Project

While a considerable number of processed or duplicated publications were generated during 1966 and 1967 when the Pilot Project was active, very little readily accessible material was available. When reports on MARC I were published in late 1967 and 1968, work was well underway on the more sophisticated MARC II format.

In 1967 the hardcover publication of the proceedings of the Bransome Conference on the Automation of Libraries included a paper by LC's Barbara Markuson and Henriette Avram.³⁷ This paper suggested questions which (still) need to be answered about the uses of bibliographic data in machine-readable form and detailed the MARC I format. During the next year, a brief paper prepared by Paul Reimers for a conference of historians provided an excellent résumé of the project and listed the sixteen primary participants as well as the secondary twenty to whom data were relayed.⁵¹ A related paper published in the same volume suggested some of the ways in which the machine-readable catalog will increase the historian's research resources.³⁶ A short report on the Pilot Project reached a wide library audience via the *Library Journal* in mid-1968, about the time the completely revised MARC II format and MARC System were operational.⁵ After commenting on the pressure which existed to move this formidable undertaking from experiment to standard practice, the article discussed some of the problems which participants in the pilot study encountered and some of the varied uses to which they had put the MARC data. On the whole, the rather negative tone of the article was discouraging to readers not otherwise familiar with the project.

The Summer 1968 issue of *LRTS* devoted seventy-five pages to a series of in-depth articles by LC staff members on specific areas of research which had determined the evolution of the MARC Pilot Project; for instance, magnetic tape format, special characters used in Roman alphabets, and bibliographic data conversion costs.^{8, 31, 32, 41, 48, 52} The definitive report of the project was published in hardcover.⁶ While this monograph's discussion of systems design and format was acknowledged to be obsolete, it provided a historical record of the project. Themes dealt with in the *LRTS* articles were covered in less technical terminology. An interesting appendix charted the differences between the MARC I format of the Pilot Project and the MARC II format then under development.

MARC II and the MARC Distribution Service

An editor's guide to data preparation in the MARC II format was

published in a softcover printed edition in 1968.⁵⁷ The major departure from the MARC I format was the use of a leader and a directory at the beginning of each MARC record. The former described several overall characteristics of the record and the latter increased flexibility for computer manipulation by indicating the tag number, length, and starting position of data elements in the record. A seven-page printed supplement detailed changes in the leader, expanded on the use of delimiters, and listed revised tags. A valuable appendix to the editor's guide described the MARC-compatible format, character set, and assemblage of data fields used by LC in the preparation of the automated seventh edition of the list of subject headings used by the Library.

With the introduction of the periodical, *Journal of Library Automation (JOLA)*, in 1968, an especially appropriate medium became available for the publication of articles about MARC. For example, in response to feedback from potential users, Henriette Avram, project director, established in *JOLA* that records in the MARC II format can be effectively manipulated by programs written in COBOL computer language.¹⁰

An updated version of the MARC editor's guide, bound in one volume with three other MARC manuals used by LC, was published by ALA in 1969 concurrently with the initiation of the MARC Distribution Service.⁵⁶ The first of the manuals in the volume gave specifications for magnetic tapes. The editor's guide was the second manual; the material was better organized and more clearly stated than in the previous version. Included were step-by-step directions for data preparation and definitions of all terms used, as well as charts and compilations of all tags and codes to be employed. The third of the manuals gave comprehensive instruction to operators of paper-tape punching equipment used to transcribe data into machine-readable form. The final manual was an exhaustive listing of computer hardware available at that time together with specification of the degree of compatibility with the MARC tapes. Later editions of the manuals reflect continuing changes in LC practice.

Looking to the Future

A number of projects have been initiated at LC in the aftermath of the achievement of an operational MARC Distribution Service. In 1969 a progress report in *JOLA* gave details of the MARC processing format at LC and described work on format recognition programs for machine-editing input.⁷ File analysis by means of a statistical program and an information retrieval program which allows the LC staff to query the MARC data base are discussed briefly. It is suggested that proposed format recognition programs might produce correctly tagged records 70 percent of the time and thus result in a significant reduction in human editing time and cost. In a later issue of *JOLA* in-depth information on the MARC sort program employed at LC is presented.⁴⁷

During 1970 a project of tremendous potential significance received some documentation in the readily available literature. This is the inves-

tigation of the feasibility of centralized, large-scale retrospective conversion of LC catalog records to the MARC format. This project, RECON, supported by CLR grants running from 1969 to 1971, published a processed report which considered in detail the technical alternatives for and probable costs involved in retrospective conversion.⁴⁹ Complementary articles reaching a wider audience appeared in *JOLA*.^{9, 11} Each of these synthesized a RECON project report. The first gave an overview of the program, including training for personnel, selection of the data base from the LC card record set, and investigation of input devices. Although the second article recapitulates some information, it amplifies uniquely on the problems encountered on two fronts: obtaining a record for the RECON data base that is in agreement with LC's official catalog, and the limitations of commercially available input devices. Related discussion of format recognition programs formed the focus of an article in *JOLA* already mentioned.⁷ The RECON Working Task Force also authored a fascinating article in which important distinctions are made between the relative level of bibliographic completeness necessary to a card distribution service and to a union catalog project.⁵⁰ This article is an extension of points raised in Appendix F of the RECON report.⁴⁹

In 1970, also, some documentation of other on-going LC projects which extend the MARC format to nonmonographic works was made available through the Superintendent of Documents. *Serials, a MARC Format* was designed to aid in automated control of serials processing as well as in transmitting bibliographic information.⁶⁰ *Maps, a MARC Format* described content designators for thematic maps of the world and its subdivisions.⁵⁵

Standards for Interchange of Data

In June 1969 virtually the entire issue of *JOLA* consisted of the important draft of the proposed American standards for the interchange of bibliographic information on magnetic tape prepared by Sectional Committee Z39.⁴⁵ Goals are outlined and a glossary of terms is provided. Part B of Appendix I illustrated application of the standards in the environment of our three national libraries with specific details of the MARC II format at that point in time.

MARC and the British National Bibliography

Coincidentally with the MARC effort at LC, a coordinated project was taking shape in England. *BNB* spokesman R. E. Coward provided a succinct but comprehensive report of plans as early as 1967 (the British pilot project ran from 1968 to 1970) in his contribution to the hard-cover publication, *Organization and Handling of Bibliographic Records by Computer*.²³ Coward expressed concern that the MARC format being developed should be a truly international one, suitable for the exchange of standardized bibliographic information while providing for local adaptation or substitution in those data fields where uniformity is nei-

ther necessary nor desirable. He treated this theme briefly and gracefully again in 1969 for an American audience.²²

A good factual description of the BNB-MARC Documentation Service, part of the administrative apparatus of the English MARC project, appeared in *Library World* in 1968.¹⁶ A characteristic of the Documentation Service has been that its publications are not readily available to other than subscribers to the MARC Record Service. Two significant monographs, however, have received wider circulation.^{17, 18}

An article appearing in *Program*, an ASLIB journal, in April 1968 indicated for a wider audience some of the adaptations of the MARC format which *BNB* was undertaking, such as the substitution of the Standard Book Number as the control number of the individual record, or the addition of the *BNB* classification number, current Dewey segmented number, or even Universal Decimal number when available.²⁸ In the area of subject control, it was planned to include a string of subject descriptors based on those used by *BNB. Program* (currently subtitled *News of Computers in Libraries*) has become for BNB-MARC what the *Journal of Library Automation* is for MARC in this country, though on a considerably less technical level. Unfortunately, the periodical suffers badly from delayed publication and delivery problems; when they do arrive, however, *Program's* issues contain frequent contributions by both official BNB-MARC authors and by participants in the MARC Record Service. In the October 1968 issue computer technician R. Bayly discussed the programs being written at International Computers, Limited, for their 1900 series computer, which allow local manipulation of machine-readable catalog data through any of six processing methods or a combination of those methods.¹⁴

An important article by Derek Austin in *ASLIB Proceedings* in 1970 discussed and illustrated with examples the results of a research project conducted by BNB-MARC to develop an improved subject indexing system which will be incorporated into the MARC tapes distributed in England.³ *BNB* itself, as of 1971, is produced weekly from MARC tapes and employs this new Preserved Context Subject Index (PRECIS). The system is derived both from the traditional *BNB* chain indexing and the efforts of the Classification Research Group to formulate a general classification scheme on synthetic principles. A more detailed report on PRECIS is available.⁴

User-Generated MARC Literature

The second category of the MARC literature is produced by users of the MARC data. Earliest reports, of course, come from participants in the Pilot Project. The importance and value of the final report of the Project rest to a great extent in gathering these individual experiences in one place in a uniform pattern.⁶ User-generated literature thereafter characteristically offers little basis for comparisons because it is so fragmentary. Pilot Project participants also published expansions on their results, of course, such as the doctoral thesis discussing in detail a success-

ful Selective Dissemination of Information service using MARC I tapes.⁵³ Ingenious use of the tapes in a teaching situation at the School of Library Science, Syracuse University, is discussed by Pauline Atherton and her LEEP associates in two articles.^{1, 2} One of the most interesting programs written for LEEP provided conversion tables for Dewey numbers, LC classification numbers, and LC subject headings based on approximately 50,000 MARC records.³³

Three articles in *Program* report on work done during the English pilot project to develop the Aldermaston Mechanized Cataloguing and Order System (AMCOS). A lecturer in Library Science, consulting at Aldermaston during the summer of 1968, discussed the successful use of FORTRAN as a programming language.⁵⁴ Twelve pages of his article are devoted to flow charts and to reproduction of full programs written for the project. Another author used AMCOS as a basis for demonstrating ways in which all but the smallest library can make use of MARC data.¹³ The acquisition by a library, or network of libraries, of one thousand works per year which appear on MARC tapes is the suggested cut-off level. Book selection is to be aided by "subject profile" parameters and a potential requirements tape file is produced. Order and acquisition records are coordinated with this file and a program is written which brings to the attention of catalogers divergences from local practice. In a later article the structure and handling of MARC files for updating in this system are described.²⁶ Two additional brief reports by other participants in the BNB-MARC pilot project have been published in *Program*.^{25, 29}

It is obvious from the all too short summaries by P. J. Quigg of papers presented at a seminar in March 1969 that BNB-MARC has, like LC, paralleled its pilot program with efforts to educate the library community to the project.⁴⁶ A small gem of the MARC literature is a rebuttal framed by J. E. Linford of *BNB* to published criticism that widespread use of MARC will have a deleterious effect on progress in classification and cataloging theory.²⁷ In his rebuttal, Linford pointed out that computers by their very nature are able to achieve uniform modification or updating of data in volume and at speeds which are impossible in manually maintained catalogs and therefore should loosen some of the constraints on revitalizing catalogs.

In the United States, the pace of publication of reports of individual experiences with MARC accelerated as subscribers to the MARC Distribution Service implemented their varied programs in 1969 and 1970. The Oklahoma State Library published a technical article replete with flow charts, sample output, and character translation tables.¹⁵ The library network described is involved in a cooperative effort to centralize maintenance of the MARC data base. Unlike the New England Library Information Network (NELINET), the product of this cooperation is not hard copy but machine-readable records tailored to the individual library's need. NELINET, composed of New England state-supported academic libraries, offers members catalog card sets, book pockets and

cards, and spine labels. Actual computer manipulation of the MARC tapes is done by Inforonics, and a NELINET report was submitted by that firm to the New England Board of Higher Education demonstrating the feasibility of such cataloging support services and of MARC II conversion.²⁰

In 1970 a representative of the library of the School of Medicine of Washington University reported on a research project which determined that MARC tapes will become economically viable as a selection tool in the medical library when the total number of records increases and if the cost of the tape subscription can be shared. The University of Saskatchewan Library, one of sixteen subscribers invited to a conference at LC in March 1969 to share reactions to the Distribution Service, published an article reporting on the use of the tapes in acquisitions and processing, in current awareness service programs, in development of author-title access codes, and in setting up high-usage subfiles.²¹ In a *JOLA* article staff members of the University of Chicago compared arrival times of LC proofslips and MARC tapes and found the tapes timely enough to be useful in selection and ordering.⁴³

There are a few published comments by individuals not directly committed to MARC. The relative success of various MARC Institutes held in this country to establish a dialog between the project and potential subscribers is reflected in only two articles. An Idaho participant confessed to being frustrated and intimidated by the technical nature of the Institute, while in Hawaii, another was inspired to evangelize for the program.^{35, 61} There is also an article in a West Virginia journal providing thoughtful assessment of the goals of MARC by a member of that state's Library Commission, and a series of columns intended to evaluate MARC was initiated, but allowed to lapse, in *Library-College Journal*.^{42, 40} Commentary by George Piternick in volume one of *Advances in Librarianship*, which appeared in 1970, is pervasively critical of MARC but was based on material available to the author only through early 1968, before the final report of the Pilot Project had been published.⁴⁴

Conclusions

From the foregoing survey, it is evident that although the readily available MARC literature often lags considerably behind current practice, strenuous if fragmented efforts have been made to inform the library community of progressive important changes. Evaluation of the MARC literature is hard to carry beyond the generality that published reports are authoritative and display a great variety in level of content as well as in the amount of detail included. There is far more literature available concerning MARC than concerning any other part of LC's total automation effort; this undoubtedly reflects the galvanizing impact of the MARC concept and the operational Distribution Service on libraries outside LC. Future publications from official MARC sources may be expected to document major investigations initiated since the MARC Distribution Service became a reality; enlargement of MARC capabili-

ties and the feasibility of conversion of retrospective catalog records.

As subscribers to the Distribution Service continue to implement their own projects using MARC tapes, there will be a rising tide of published reports of local experiences and achievements. With few exceptions, such reports so far have been descriptive rather than evaluative. There will be a need for increasing amounts of commentary to discuss trends (such as that toward networks as the economical pattern of organization among subscribers), to formulate cost studies, and to compare and evaluate local experience in the interest of coherent development of the great potential in the machine-readable catalog.

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Book Catalog—to Have or Not to Have

PAULA KIEFFER, *Coordinator
Technical Services
Baltimore County Public Library
Towson, Maryland*

Twenty-nine questions to be asked before deciding on a book catalog, with comments based on the experience of the Baltimore County Public Library.

Introduction

THE FOLLOWING QUESTIONS, with comments, are intended to be helpful to public libraries contemplating a book catalog and are based on the experience of the Baltimore County Public Library with its computer-produced book catalog.

There are several methods of producing book catalogs. The BCPL examined three of these: sequential card camera, tabulating equipment, and computer and decided on the computer. For this reason the assumption made throughout this paper is that the work will be done by computer.

While most of the questions also assume that the work will be done by a contractor, many will apply equally well to work done by a local government data processing department. It is hoped that other libraries may be saved from the many pitfalls encountered by the Baltimore County Public Library.

1. Is a book catalog desirable in our situation, and if so, why?
Each library should make this decision based on its own situation and resources. The Baltimore County Public Library is a system with sixteen branches and no main library. Thus there was no public area where the resources of the entire system could be displayed. With the book catalog this display is possible in all agencies and in the public schools. A library consisting of one agency only would not be justified in investing in a book catalog.
2. Should the book catalog be done by computer, sequential card camera, or tab equipment?

The ease and speed with which the data on magnetic tape can be up-

dated, stored, and reprinted are greater than with the sequential card camera. With print chain containing upper and lower case letters or with photocomposition the product is better looking and easier to read than a system using tab equipment.

3. What other library operations are slated for automation and how would a book catalog fit in with the plans?

At present the book catalog and the payroll are the only automated procedures in the library.

4. Who should produce the book catalog—a commercial firm or the local government data processing center?

A commercial firm will be under contract (with a built-in penalty) to produce the book catalog and supplements on time. The question of priorities does not enter into the picture from the library's point of view. A local government data processing center will presumably be doing work for a number of government agencies whose work could take precedence over the library catalog.

At present there are a number of commercial firms with experience with book catalogs, whereas it is unlikely that the local data processing center has such experience. With competition available much better terms can be obtained from contractors.

5. What commercial firms produce book catalogs?

The following are the firms known by the author as having produced one or more book catalogs.

Automated Data Service, Suite 1150, 1100 Glendon Ave., Los Angeles, Calif. 90024.

Bro-Dart, Inc., P.O. Box 923, Williamsport, Pa. 17701.

Data-Matic Systems Company, West Point, Pa. 19486.

Johnson & Prince, Inc., 214 S. Twelfth St., Philadelphia, Pa. 19106.

Autographics, 4833 Rugby Ave., Bethesda, Md. 20014.

Rocappi, Inc., 7000 N. Park Dr., Pennsauken, N.J. 08109.

Science Press, 300 W. Chestnut St., Ephrata, Pa. 17522.

Sedgwick Printout Systems, 410 E. 62nd St., New York, N.Y. 10021.

Xerox Biblio Graphics, 2500 Schuster Dr., Cheverly, Md. 20781.

6. What will be the cost over the first five years?

The question of cost is the most difficult to answer as well as the most pervading. Every decision is influenced by the cost of every item. The average annual amount paid to the contractor by the Baltimore County Public Library over a five-year period was \$43,837.02. *This does not represent the entire cost which would include all the preparatory work done by technical services.*

7. What other libraries or systems of libraries might be interested in sharing the data base, or what other library's data base might be used?

The BCPL data base is being used by two other public library systems now and there may be more in the future.

8. What other book catalogs has the contractor produced?

An examination of these and the catalogs of other contractors will

be helpful in making decisions regarding content and format. A contractor's reliability in performance can be checked by conferring with the libraries involved.

9. How is your catalog (and library) used, by whom, and for what purpose?

The answers to these questions should be known as an aid in deciding what type of catalog would be best and how much data should be included. The Baltimore County Public Library is used by students, housewives, professional people, out-of-school adults, and children.

10. Should the catalog be a complete bibliographical tool or a finding list?

The BCPL catalog is a finding list. It was felt that this would satisfy 98 percent of the users. Anything more would be an extravagance because the information would be readily available in other places. We find that most users adversely affected by this policy are students who neglected to note the bibliographic information while preparing bibliographies. The information contained is the following: call number, author, title, edition statement, date, collation for multivolume works, the contractor's access number, and some series and bibliographic notes. The time of decision to have a book catalog is a good time to rethink old practices and eliminate those practices whose only sanction is historical.

11. What supplementary indexes can be used in connection with the book catalog?

The BCPL has created its own play index and biography index to supplement the book catalog and the published indexes. These eliminate the necessity for analytics. The CBI, BIP, and NUC are also used to supply data not included in the book catalog. Each branch has a copy of the Library of Congress list of subject headings to use for cross-references.

12. Should the book catalog show the holdings of each individual agency?

The BCPL showed individual branch holdings at first but found that the time consumed and the cost involved in updating them were out of all proportion to their use; in addition, they were never accurate. If a book is not in one agency it can be reserved through intralibrary loan and, under ideal conditions, it can be in the hands of the borrower within two days. If a borrower has to have the book immediately he can call intralibrary loan and get the names of the branches owning it. He can then call the branch and have it held for him to pick up. Up until July 1969 this rarely happened. In that month the library began charging 10¢ for reserves. Right away the number of reserves dropped and the calls in intralibrary loan increased. However, it turns out that very often the titles that are telephoned for one day turn up in intralibrary loan the next day as reserves.

13. Should the catalog be in a dictionary form or should it be divided?

There are a number of advantages to a catalog that is divided by author, subject, and title over a dictionary catalog. The person doing a subject search does not hold up the person interested in authors or titles. The filing is simplified and is also more readily understood. It is possible to print more subject catalogs, for instance, and fewer title or author catalogs depending on the experience of use in the different branches.

14. How frequently should the catalog be printed—complete revisions and cumulative supplements?

Here the cost consideration and service to the public have to be balanced. The BCPL published first a "basic," a catalog showing all but a small fraction of the titles in the library. Bimonthly cumulated supplements were issued with an annual cumulation at the end of the year. At the end of the second year a complete cumulation was issued and the cycle began again.

15. How many copies should be printed and how should they be distributed?

Here cost is not so great a factor. Printing and binding are the least costly items. The BCPL sends to the branches from two to eight sets depending on the size of the branch. It also sends the juvenile catalog to all public elementary schools and the adult catalog to all public high schools.

16. Do the technical services staff and the programmers understand each other?

This understanding is difficult to achieve for older staff members. As more library school graduates are entering the profession who have been exposed to data processing the situation should improve. It is extremely important, for without it chaos ensues. Understanding and agreement must be achieved for every single item no matter how minute.

A series of test runs should show up defects in the program. The BCPL has two program errors. First, title entries are printed whether or not they are called for in the tracings. Thus there are several columns of "works," "complete works," etc. Second, when an added author is used, the main author is dropped in that entry, making it impossible to find the book since the library does not use discrete call numbers. These errors could have been corrected in time if there had been test runs. *Programmers have a tendency to equate what the library wants with what they can do easily.*

17. Will the catalog be retrospective or consist of current acquisitions only?

A large system with a central library and large central catalog might want to start with current acquisitions and gradually add the older material. A new system with a small catalog would probably do the whole thing at once. The BCPL was relatively new with about 55,000

titles; it was decided to include all but a few of the holdings in the first "basic."

18. What file or files will be used to create the data bank?
This will depend on what arrangements are made to transmit the data (see question 19). The BCPL sent its shelflist directly to the contractor. This was possible because the shelflist was not used to show holdings which are shown in a separate alphabetical file.
19. How will the library transmit the data to the contractor?
The BCPL sends a unit card to the contractor who then codes it (access number) and the information is then keypunched and put on magnetic tape. Thus the library does not have to do any keypunching or coding. It is possible to use coding sheets and send them to the contractor to be put on magnetic tape, or the library itself can create the tapes.
20. What will be the schedules for input and output?
The BCPL has bimonthly supplements; the cut-off date for input is the twentieth of the month preceding the month the supplement is due. Cards are sent to the contractor three or four times during the two-month period. The supplement is scheduled for delivery the fifteenth of the month following its date. The schedule for the 1970 basic is November 13, 1970, for the cut-off date, and January 15, 1971, for delivery.
21. What will the branches use in lieu of a catalog between supplements?
Each branch receives, in addition to its shelflist card, an extra unit card for each new book showing the date of the supplement which will contain that title. Some branches file them by author and some file by title. When the supplement appears those cards are removed from the file. There will at times be cards for two different supplements in the file at the same time due to the time lag between the cut-off date for input and the appearance of the supplement.
22. What will be the means of access to the tape?
The aforementioned contractor's access number. If the library uses discrete call numbers they could be used.
23. What provision will be made for corrections, changes, and deletions, and what will be the charge?
The BCPL has three forms—two cards and one sheet. One card is for the correction of the contractor's errors and one is for the library's errors or desirable changes. The sheet is for deletions or withdrawals; on it are given the contractor's access number and the author's last name or, in the case of a title entry, nothing. The cost is 36¢ per change.
24. What will be the format—position of call number, number of entries per page, number of columns, etc.?
Here again the examination of other catalogs will prove helpful. The BCPL has a problem in that the access number appears on the left after the body of the entry; the call number appears in the

same line on the right. The public tries to use the access number as the call number. Since we went to photocomposition the call number is in bold face type which helps somewhat but does not solve the problem. There are three columns to a page with about ninety-five entries per page.

In the author catalog the author's name appears once with the titles listed alphabetically under it. In the subject catalog the subject heading appears once with the authors and titles listed alphabetically by author under it.

25. Will the ALA filing rules be followed or will the filing the computer produces be acceptable?

The ALA filing rules were designed for filing cards in a dictionary form card catalog. A divided book catalog makes many of the ALA rules inapplicable. The rules that do apply (those for diacritical marks, numerals, initial articles, etc.) can be programmed or ignored or the data display can be manipulated (e.g., by writing out the numerals, omitting initial articles, etc.). The question should be considered very carefully. By scanning the pages it is possible to discover the method of arrangement much more readily in a book catalog than in a card catalog. The ALA filing rules can be programmed, but the question is, is it worth it?

26. Will there be a restriction on the number of subject headings allowed?

The BCPL specifications call for an average of three subject headings per title. This is very satisfactory as the number per title is not restricted.

27. How will open entries be handled?

The BCPL now enters frequently published works with no date and no edition statement. At first we used a note "Consult Librarian," but so many patrons went to the librarians asking what they should consult about that the note was dropped.

28. Will provision be made for "see" and "see also" references?

There is no provision for "see also" references. A selected list of "see" references is printed on green paper and appears in the subject catalog. "See" and "see also" references in the body of the subject catalog would be an expensive item at the present time. The Library of Congress list of subject headings which has been put in each library is used for cross-references.

29. What should the contract contain?

The BCPL contract contains the following elements:

Scope—labor, materials, and facilities furnished by contractor;

Term—dates of duration of contract;

Designation of representatives for technical administration of contract;

Transfer of rights;

Hold and save harmless;

Termination of contract before expiration date;

Changes in language of contract;
Technical description of articles and services, input-form-catalog cards, worksheets, etc.;
Input information—description of each data element, average number of information characters;
Entry formats—author catalog, title catalog, subject catalog;
Data element display;
Filing;
Cover and binding specifications;
Accumulation and frequency specifications;
Delivery schedule;
Rights transferred—computer programs owned by seller and buyer;
Quality of services;
Schedule of prices;
Schedule of payments.

Undertaking a Subject Catalog in Microfiche

KATHARINE GAINES
Cataloging Consultant
Ramapo Catskill Library System
Middletown, New York

The Ramapo Catskill Library System, Middletown, New York, developed a subject catalog of materials in the central library and the system headquarters. As a card catalog this tool assisted the system staff in finding subject material from books which are located within the system area. In an effort to better serve the individual in member libraries desiring this material, subject heading simplification was instituted, the subject catalog was filmed and placed on standard microfiche, and a set of the microfiche catalog was placed in each of the member libraries. A system grant was offered for the purchase of a microfiche reader.

IN JUNE 1970 RAMAPO CATSKILL LIBRARY SYSTEM initiated a subject catalog in microfiche form. This consists of 178 (4 × 6) microfiche including approximately 60,000 subject entries for books available throughout the Ramapo System. Each microfiche has at the top in eye-readable text the first and last subject heading included on that microfiche. The complete set of this subject guide takes up four inches of filing space. One set has been given to each of the forty-five libraries in the system free of charge.

The headquarters staff felt that a subject listing to Ramapo Catskill Library System (RCLS) area library books would provide not only quicker access to what patrons wanted but also would spur interest in other referred subjects. *Books in Print*, *Cumulative Book Index*, and other standard bibliographies with their thousands of entries can be self-defeating to many patrons. If the subject is all that is needed (not a particular book or author) and cannot be found in the local library, Interlibrary Loan Department time can be saved for more specialized tasks, since three vital conditions are met to expedite the filling of the request satisfactorily.

1. Item has been selected by the patron himself.
2. Automatic verification (copied from reproduction of Union Catalog record).
3. Availability in the area.

Hopefully, an increasing percentage of TWX (teletype) items will no longer have to be diverted to the state or other institutions outside RCLS. This will result in future costs savings to the taxpayer, albeit proof of this claim would be improbable.

Throughout library literature of the 60s were found statements such as: "Initially microfilming was thought of as a technique for space reduction in some special libraries or in connection with the need for preservation of materials in scholarly libraries. This was true both for files that were going to be stored away for safekeeping and for the preservation of much more fragile documents, such as newspapers. However, microforms are now beginning to be used as a medium of communication, much as books and report literature are used."¹

We at Ramapo are enthusiastic about microfiche applied to a subject catalog because:

1. It is a microform system designed and tailored for user requirements.
2. Our pattern of learning and knowledge from earliest childhood is divided into units or categories or subjects. This concept is easiest for us to handle. A unit microform merely adds a new technical dimension to aid us in switching, copying, or redistributing information.
3. A unit microform is a simple economical means of preparing and distributing technical documents where the unit is generally 5 to several hundred pages long.
4. Within the last year, major federal government technical information service and others, here and overseas, have standardized on microfiche to distribute technical report literature. They use a standard format recommended by the National Microfilm Association, and the COSATI group of the Federal Council for Science and Technology. The outputs of these agencies represent the greater percentage of technical report literature being distributed today. Continuity and compatibility will bring a greater availability of pertinent information, a wider range of good low cost using equipment.
5. Unit microforms are easily filed, easily found, and easily retrieved. They can be interfiled, regrouped for user convenience, used one at a time as a unit, and stored in a minimum of space. The user has a choice of copying the documents in a miniaturized form or full size. He can select and copy pages at will. Convenient equipment, including readers, reader-printers, hard copy printers of many manufacturers are available to make full use of the unit microform.²

National Cash Register (NCR) has put it this way: "One 60-page report on one microfiche. No need to wind through 100 feet of film to find the report you want. No need to tie up 100 feet of film while you look at one report."³

In other words, once the machinery was available for the use of the microfiche catalog, the machine could be put to other uses in reading actual books and articles, and only limited by what the mushrooming micropublishers will be issuing, and of course, the capabilities of the machine itself.

It was felt, therefore, that the new catalog would be put to the most

effective use if each library purchased a machine, which is called a reader, to be used exclusively for microfiche. The Atlantic F66 Microfiche reader, which we chose, had several definite advantages.

1. It is sturdy and simple to operate.
2. It enables the user to adjust the focal point in such a manner that it moves over the entire surface of the fiche vertically and horizontally at will, both backwards and forwards. Subjects could thus be easily searched, compared, and identified.

Some of the larger libraries wanted expensive machines which operate both microfilm and microfiche. The use of time-consuming attachments, i.e., a microfiche attachment to a microfilm machine, etc., was discouraged. Immediate access to a dependable microfiche reader was essential if proper use of the catalog was to be rewarding. Also, it was strongly felt that our libraries would particularly benefit from the economy of the low prices of materials on microfiche. Constant and ready accessibility to microfiche through a machine was of utmost importance.⁴

Throughout the project, which truly began in the middle of December 1969, many decisions had to be made under pressure. We set a deadline of April 15, 1970. We undertook the project with no extra filing or typing staff, but our staff did a magnificent job of filing 58,500 cards in the five and a half months while keeping other essential duties going. We logged 659 hours of filing including the revision of each card according to the second edition of *ALA Rules for Filing*

Catalog Cards.

After considering the advantages and disadvantages of using negative or positive film, we decided on recommending negative film for the following reasons.

1. Articles definitely are easier to read on negative film because less light reaches the reader's eye and we felt that librarians should train patrons to feel comfortable with negative.
2. Presumably card catalogs seldom will be used for reading, instead they will be used for locating subjects quickly.
3. Scratches are distracting on positive fiche, particularly in the case of catalog card reproduction.
4. Negative replacements are quicker and cheaper to reproduce.
5. Most reader-printers are designed to work best with negative microfiche because black and white is reversed in printout.
6. Used by government agencies for distributing reports.⁵

Although it is true that positive film renders photographs easier to interpret and many people find positive easier to adjust to, we felt that the advantages outweighed the disadvantages of the negative.

Therefore, fifty sets of negative were contracted for. Five positive sets were ordered at a greater cost and the first five libraries requesting these received them. We feel that through system-wide discussion and

debate we will have learned much in this area when we update the catalog in 1971.

This subject guide on microfiche is referred to when the patron of the library cannot find subject access in the library's own card catalog. (However, it should be borne in mind that this edition of the catalog is restricted to the selection of Central Book Aid (CBA) materials and 68-69 RCLS pool collection books plus three hundred selected holdings from member libraries which are not duplicated in the pool collection. Therefore, representation of many *popular* subject areas is excluded.) Depending on each library's decision, especially during the first months of getting acquainted with the actual physical use of this form of a catalog and the machine, the patron may or may not look for subjects on his own. In particular regard to this question (and other related matters), please refer to the results of a survey conducted among the member libraries and given in Appendix I.

In making a search for subjects requested, the librarian goes to the microfiche file holder and simply selects the correct microfiche (i.e., by looking at the index guide at the top) and inserts the sheet of film into a microfiche reader. The image of the original catalog card with its subject heading at the top of the card appears clear and enlarged on the screen (actually several cards are seen at once on the screen). Since microfiche is the fastest way of retrieving *so long as the filing is free of error*, an important step has been made economically in enabling the people in our communities to know immediately if any of these subjects can direct them to the material they need. If the catalog is heavily used, a cumulation will be planned in 1971; the goal is at least an additional 40,000 entries. The usefulness and value will be tripled because of the experience we have gained in producing this first catalog.

Filing integrity is not a serious problem with the short four inches of 178 subject guide fiche, each one of which is marked clearly: "1 of 178," "2 of 178," etc. However, when the library's files are increased to more than fifteen inches, a simple system of color coding will be introduced to assure with ease the accurate replacement of fiche in their holder cabinets.

By October it is hoped that library patrons can benefit from using the guide for themselves at certain times. The user is asked to fill out a brief charge slip. Upon return of the fiche to the desk, the slip is torn up and the fiche is immediately refilled by the librarian. However, if time is required to teach a patron how to use a reader during busy hours, it should be understood that he can use the card catalog and subject bibliographies in book form and be invited to come back when time can be devoted to introducing him to the use of microfiche. Also, during the busier hours, written requests for subjects could, of course, be put aside for the librarian to search at some more convenient time.

For easier and more direct subject access we are experimenting with truncated subject headings. The Library of Congress advocates abbre-

viated 17th edition Dewey classification numbers for certain libraries. To help libraries determine a shorter number without having to take time to think out the structure of the classification scheme of that number, the number is truncated by prime marks (i.e. 021'0095) on the Library of Congress card. A local library can then use the truncation mark as the cutoff point. The computers of processing centers in reproducing catalog cards, as we understand it, can be economically instructed to stop at such a symbol and do one of the following:

1. Ignore what follows the mark in the printout (providing there is consistency in always wanting this to be done).
2. Overlook what follows the mark in the filing scheme.

We indicated our truncation of certain redundant subdivisions by utilizing a tiny dividing black bar inked on the card in front of the dash before an undesired subdivision. Thus we could consolidate subject areas for public library use. It was agreed that this consolidation is more essential than separating materials merely by the fact that it is a "popular work," an "introduction," or an "essay." Such subdivisions especially become lost among essential subdivisions such as "-AFRICA"; "-BOSTON"; "-BIBLIOGRAPHY"; and "-HISTORY."

Knowledge and experience in the handling of materials, however, is essential to ascertain what subjects might *need* to keep selected subdivisions, which in most cases should be truncated for average public library use. For instance, literature works might best be kept separated by "-ADDRESSES, ESSAYS, LECTURES" when this subdivision applies to the work being cataloged (i.e., AMERICAN LITERATURE—ADDRESSES, ESSAYS, LECTURES, but there is little significance in using *GEOLOGY—ADDRESSES, ESSAYS, LECTURES*).

Following are examples of subject headings which include truncated subdivisions with the tiny black bar. Please note that these subdivisions are ignored in the filing order of the microfiche subject catalog.

1. -ADDRESSES, ESSAYS, LECTURES (as is illustrated in figure 1)
2. -POPULAR WORKS

Of what practical use is this differentiation to the public library catalog? This subdivision should be interfiled among the main headings *GEOLOGY* and not "lost" on another fiche among *fifty* necessary subdivisions of *GEOLOGY*. "Necessary" subdivisions are:

GEOLOGY—BIBLIOGRAPHY

GEOLOGY—CANADA

GEOLOGY—HISTORY

3. -COLLECTIONS

Many people looking in a public library catalog can see no advantage in particularizing most subjects as "COLLECTIONS" or as "COLLECTED WORKS." Anthologies of poems or essays—yes! *AMERICAN POETRY—COLLECTIONS* is necessary to lead patrons to anthologies.

4. -INTRODUCTIONS

Similar to the subject heading *POPULAR WORKS*, the above subdivision can serve to separate in the catalog an author's works (see in

The truncation sign before "Collections" has consolidated the filing of these two works by Bartlett on the same subject.

This entry would have filed 200 cards afterwards if the truncation sign had been omitted.

<p>U.S.—FOREIGN RELATIONS</p> <p>327. Bartlett, Ruhl Jacob, 1897— 73 Policy and power; two centuries of American Ba foreign relations. [1st ed.] New York, Hill and Wang [1963]</p>
<p>UNITED STATES—FOREIGN RELATIONS ■—COLLECTIONS</p> <p>327. Bartlett, Ruhl Jacob, 1897— ed. 73 The record of American diplomacy; docu- Ba ments and readings in the history of American foreign relations, edited by Ruhl J. Bartlett. 4th ed. enl.</p>
<p>U.S.—FOREIGN RELATIONS ■— ADDRESSES, ESSAYS, LECTURES</p> <p>327. Bemis, Samuel Flagg, 1891— 73 American foreign policy and the blessings of liberty, and other essays. New Haven, Yale Univ. Press, 1962.</p>
<p>U.S.—FOREIGN RELATIONS</p> <p>327. Bemis, Samuel Flagg, 1891— ed. 73 The American Secretaries of State and their Be diplomacy. New York, Cooper Square Pub- lishers, 1963— [v. 1-10, c1928]</p>

Figure 1

figure 2 the three cards having Karl Barth as the author). A sensible policy would be to rely on subtitles, annotations, etc., in browsing among catalog cards to find this aspect of a subject. In most cases this would not take long. (See illustration in figure 2.)

Furthermore, it is too much to expect cataloging consistency in these particulars. The Library of Congress itself omits the subdivision "—Introductions" in the tracing for several titles even though there are

This card would have been filed 50 cards afterwards if the truncation sign had been omitted.

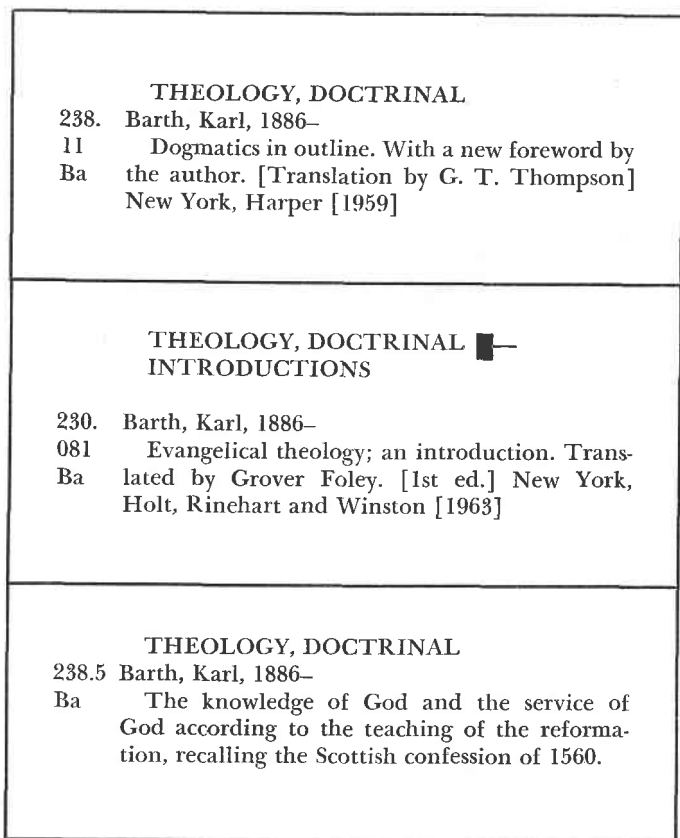


Figure 2

clues to this fact on the card, such as the subtitle reading "an introduction," etc. For example, perhaps there is an obscure technical reason for omitting "Introductions" in the subject tracing "1. Insects" for the work entitled *Entomology for Introductory Courses*, 1951, by Robert Matheson. Nevertheless, public library cataloging should not have to involve itself in trying to be consistent with Library of Congress practice in tracing comparatively useless subdivisions.

Moreover, for the patron who is looking for "an introduction" or for the scholar who wants "collections" on a subject, the information is still there on the microfiche reader screen. The subdivision is simply not used in the filing order. However, as has been implied, we hope the Library of Congress offers the service of truncated subject tracings. The cards which are commercially produced will no longer show certain subdivisions in the heading at the top although the tracing at the bottom of the card would still be printed in and could therefore be used for its information value. For example, the subject at the top of

the card might read as "POVERTY" but the tracing would still show as "1. Poverty ■—Addresses, essays, lectures."

On the microfiche project there were two subdivisions which were marked out (there was no time for either retyping or erasing) as being confusing and misleading. "Translations into English" was deleted, since this catalog is one of English works and is therefore completely redundant. The second one is "Selections: Extracts, etc."; and "Collections" instead was preferred and added.

"Selections: extracts, etc." separates collections of works too particularly for most tastes, assumes too much knowledge of subdivision on the part of both patron and librarian, does not apply to many books, and is often too time consuming to verify for catalogers. What practical advantage can there be, therefore, in such a distinction?

We just did not foresee certain unfortunate results from filming the catalog cards in this manner. And although the usefulness of the catalog is not diminished, its critics can find the points described below irritating and time-consuming. Now that we have gained hindsight in the traditional trial-and-error way we can promise far more effectiveness in the next edition by instructing the company on how to avoid these flaws.

First, the most serious time-consumer is finding the continuation of the same subject on a second fiche without any indication of its being continued; that is, it should have had on the label: ARTHUR, KING (Continued on fiche 12). Since it is undesirable to have headings split in this manner, however, the next edition of the catalog will not have this drawback at all. It is true that often a main heading would have to be split, but one subdivision of that main heading (or subject) would be completely listed on one fiche before beginning on the next fiche with another subdivision of the same subject heading.

Included in the index labels were see references. On fiche no. 19 the label has: *BOOKS—HISTORY to BRIGHT CHILDREN see GIFTED CHILDREN*. The word "see" was fortunately typed in lower case but see references should never have been included in the labels at the top of the fiche (the part of each fiche that is in eye-readable print). However, once the confusion is explained "away," time can be saved since fiche no. 19, for example, does not have to be placed in the reader at all; that is, if one wants material on BRIGHT CHILDREN, one should extract fiche no. 64 which includes material about *GIFTED CHILDREN*. If this catalog is updated, see references will be omitted from the labels, notwithstanding the advantage just mentioned.

Naturally, inaccuracies in filing resulted but the error incidence is surprisingly low considering the rate of speed at which the filing was implemented in changing over to the new ALA rules. "AFL-CIO" is found mistakenly after "Afghanistan" instead of where it should be: the first card ahead of *AACHEN—HISTORY*. It is a peculiar rule to understand at first since periods are not used with the initials; i.e., AFL instead of A. F. L.

The print on the cards themselves was uneven. In some cases, it was very light; this resulted in uneven exposure because camera registration was set in such a way to keep labor costs down. Some of the fiche are thus difficult to read. Many are being turned in because they are blurred. However, the master copy renders legible copies and replacements are sent immediately to the member libraries.

Regrettably, there was not enough time on this edition to treat cancelled subject headings properly or give enough explanatory references. For example, do people know the distinctions Library of Congress makes between *MARRIAGE*, *MIXED* and *MISCEGENATION*? In a new edition of this catalog, we will treat cancelled subjects as illustrated in Figure 3.

One side effect that has not been mentioned is that small libraries will be able to catalog some of their holdings just as if it were a "cataloging-in-publication" (formerly "cataloging-in-source") service.

Since cross-referencing will be tailor-made for RCLS, all personnel in our libraries will probably begin to see the advantages of knowing about true subject access. One of our librarians wanted material on "Language Arts." Library of Congress does not recognize this as a "bonafide" subject heading but guidance is given in the following: "LANGUAGE ARTS, *see* COMMUNICATION, ENGLISH LANGUAGE, LITERATURE, LITERATURE—STUDY AND TEACHING, READING, SPEECH." The referred subjects are now listed in a column, but we receive most cross-references from commercial firms with each one separately printed, and we have to revise and edit them. Since hundreds of revisions are made by the Library of Congress each year

The present microfiche catalog has only the suggestion: "See also."

<p>FACTORIES—MAINTENANCE AND REPAIR For works cataloged since 1966 see PLANT MAINTENANCE</p>
<p>PLANT MAINTENANCE For works cataloged before 1967 see FACTORIES—MAINTENANCE AND REPAIR</p>

Figure 3

in both subject and name headings, each New York State Library System headquarters should aid the member libraries in basic updating. All public libraries in a given area cannot be expected to keep up with the supplements to *Subject Headings Used in the Dictionary Catalogs of the Library of Congress*, 7th edition, and *Sears* does not keep up with language changes.

Introducing microfiche to libraries required further education and aid in gathering the right kind of materials. Effective implementation of the project necessitates many hours on the phone, and a personal visit to each member library was made by the cataloging and reference headquarters staff to demonstrate microfiche readers.

In order to insure the all-important integrity of filing of the fiche, a simple means of color-coding, using a permanent felt tip marker, will be introduced to each member library when it requests it. One member library is acquiring a sizable microfiche collection and we have already suggested a simple method of drawing straight lines diagonally on the bottom of a group of fiche. If a fiche is not found in its regular place or two or three places either way (and, of course, if it is not a numbered group as, for example, our subject catalog on microfiche), the group of usually three to seven inches is gripped together, turned upside-down, and the missing item shows up easily by the markings being out of line.

The opinions about the project from the directors of the member libraries are variable, but on the whole, this catalog is a successful and economical means of getting better subject access in the hands of our readers (cf. appendix 2). Meanwhile, at the system headquarters we are busy working on a bigger and better edition!

In closing, I wish to quote some choice statements from an article entitled "Little Fiche Eat Big Librarians—One Whale of a Story," by Edward C. Jestes.

Librarians are now drowning in the flood of paper produced by the polluting pulp mills. Our weakness is our meticulous record keeping. In the process of record keeping something rubs off—we have memories, and human librarians are the best information retrieval system in existence. Lack of information and its dissemination could be blamed for the very possible destruction of the delicately balanced life system of earth and atmosphere which took millions of years to evolve. Lack of information on how people might learn to be gentle and loving could make life miserable for our children. The world's information is channeled across the desks of librarians, and if some of this information can be put into machines and compacted to save space and time and permit more efficient retrieval, then librarians should be the most efficient candidates for the job.

Librarians must flow over, under, around, and into the black boxes, put them to good use, and not let technology dehumanize anybody—librarians or patrons.

It might help if librarians were given an hour each day to read about microfiche, systems analysis, programming, critical path analysis, use and control of

media centers, and one's own subject specialty. How about it, administrators? Industry has been supporting continuing education of its employees for years.⁶

APPENDIX I

This questionnaire was sent to RCLS Member Libraries. The answers which were returned are summarized on the right-hand side below.

Affirmative answers
(Approximate figures)

- | | |
|--|--|
| I. Subject catalog on microfiche | |
| 1. Do you find this catalog useful? | 84% |
| 2. Have you allowed the public to use this catalog by themselves? | |
| Comment " <i>They love it</i> "—"We are still in process of educating"—" <i>As setup permits</i> "—etc. | 52% |
| 3. If you had an extra set, would you like to see the public use it in the same way a book or card catalog is used? | 68% |
| 4. The new edition of the subject catalog will have at least twice as many entries. Are you looking forward to the ENLARGED edition of subjects? | 94% |
| II. Use of the microfiche reader in your library | |
| 1. Do your patrons use the reader for ERIC articles? | 42% |
| 2. Have you ordered periodicals or other materials on microfiche? | 36% |
| 3. How often is your subject catalog used each week? | ?4; never:1; 1-5:6;
6-10:6; more than 10:2. |
| 4. Do you have any plans to purchase other materials on fiche? | 52% |
| 5. Has any attempt been made to help older people overcome objection to reading material in this manner? | 21% |

The latest complete tabulated system report (1969) was used as the basis for eliminating certain small libraries from being included in the percentages on the preceding page. These "small" libraries serve less than 5,000 populations and/or are locally funded less than \$15,000 a year. Eight of the fifteen libraries in this group sent in answers and only two of those eight answered I. (1) and I. (4) negatively. More bibliographic selection aid and personal visits will be required before the smaller libraries derive the most benefit from the microfiche project. In the aforementioned group of better funded libraries, 79 percent of these twenty-four libraries selected to be included in the table answered the questionnaire.

The following three libraries were also excluded in the report: Newburgh, the RCLS central library (a complete CBA subject card catalog is housed there); Monroe (only recently received their microfiche reader); and Spring Valley (now withdrawn from the system).

APPENDIX 2

Cost comparison with the book catalog.

CBA book catalog (printed by Data-Matic Systems Corp.)

			Entries	
1967	100 copies:	Author and Subject entries for each work	51,000	\$11,264.00
1968	100 copies:	Author and Subject entries for each work	4,153	922.00
				\$12,186.00

(Approximately 55,000 entries)

Subject Microfiche Catalog (1970)

Ordered		Quantity	Unit	Price
178	Masters 105 × 148 per 1,000 images	178	25.00	\$1,467.97
8,900	Diazo Duplicates backed each 105 × 148	8,900	.13	1,157.00
890	Silver positives duplicates each	890	.15	133.00
				\$2,757.97
				(58,720 entries)

(Approximately 60,000 entries)

Another way to put it:				
50 sets (negative)	\$23.14 each	\$1,157.00		
5 sets (positive)	\$26.75 each	133.00		
Basic costs of master set		1,467.97		
		\$2,757.97		
Microfiche holder cabinets				
46 (Demco)	with discount	\$	497.06	
Money set aside for readers to each member library; (110.07 plus delivery)				
		approx.	\$5,535.00	
Total for catalog sets, readers, and holders		approx.	\$8,790.53	

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4. The author wishes to express special appreciation to the following: Mrs. Joseph Gobolos, RCLS Reference Coordinator; Mr. Sumner White, former RCLS Assistant Director; and Mr. Joseph Kelley, Production Manager for the Atlantic Microfilm Corp. Also, Mr. James Connolly, Program Manager, Arcata Corp.
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The Eppelsheimer Subject Catalog

GORDON STEVENSON

*Assistant Professor, School of Library Science
State University of New York at Albany*

In German academic libraries today, the main subject approach to books is provided by the classified catalog. Classification is considered principally as a means of organizing entries in a catalog, and only secondarily as a way of arranging books on shelves. Most German libraries have developed their own classification systems. However, since 1945, a method originally devised by H. W. Eppelsheimer for the Mainz City Library has found wide acceptance. It is a complex of catalogs which combines features of both subject classification and alphabetical subject indexing.

DURING THE 1920s, when he was on the staff of the City Library at Mainz, Hanns Wilhelm Eppelsheimer worked out a new method for constructing a classified catalog.¹ Taken separately, no single part of the method was entirely original, but the final product was a subject catalog unlike any other then in use, and one could make a fair case for the argument that it was one of the first modern classified catalogs in Germany. The method of the Mainz *Sachkatalog*, as it is called, is little known outside of Germany, but within the country of its origin it has had an extraordinary dispersal. Today it is the most widely used method in West Germany and has had some impact on classification thinking in East Germany.

We in the United States have had very little experience with the classified catalog; we seem to be irrevocably committed to our system of shelf classification and open stacks combined with the dictionary catalog and alphabetical subject indexing. Our colleagues in Europe are, by and large, just as devoted to systems which are quite different from ours. Basically, we have the same problem: what is the best way to organize books and what sort of catalogs are most useful in keeping track of them and finding them when we want them?² The long-standing differences of opinion as to the answer to this question suggests that our own thinking has gotten into something of a rut since 1876, and that we might be able to make a more constructive and imaginative critique of our own system if we were more familiar with alternative solutions. For this reason, the Mainz *Sachkatalog* should be of considerable theoretical interest.

In European libraries, as in American libraries, history and tradition have been important factors in shaping current policies and practices;

therefore, a few notes on the historical background of German classification are in order before turning to the Mainz method.

Historical Background

During the first three decades of this century, German librarianship was still under the momentum of the Prussian library reform which had started in the 1880s. This movement resulted in a series of major improvements in bibliographical organization and control which culminated in the start of the *Deutscher Gesamtkatalog*. It also created a climate favorable to attempts at the standardization of classification. Subsequent discussions of the classified catalog raised issues which, to this day, have not been completely resolved. Efforts to reform the catalog had only moderate success and the context out of which the Mainz method emerged was a library tradition in which the classified catalog was deeply rooted in the nineteenth century, bound by tradition and convention, and almost implacably resistant to change. It is no exaggeration to say that Germany entered the twentieth century with hundreds of handwritten book catalogs, many of them based on long out-of-date systems, difficult to use, and all different. This situation had not changed significantly when Eppelsheimer and his coworkers started their catalog at Mainz.³

Between 1919 and 1929, when the prototype of the Mainz method was developed, the Mainz *Stadtbibliothek* would have been categorized as a *wissenschaftliche Allgemeinbibliothek*, which is to say that its collecting activities were general and scholarly.⁴ In German libraries of this type, the books were stored in closed stacks (as they still are today), and the classified catalog was (as it still is today) the basic tool for providing a subject access to the collection. The alphabetical subject catalog as we know it in the United States, though it had had a long history in Germany, found favor with only a few librarians. Except in isolated cases (mostly in Southern Germany), the preeminence of the classified catalog was never seriously threatened.⁵ This emphasis on classification did not result in anything even remotely comparable to the uniformity which the rise of the Dewey Decimal and Library of Congress classifications brought to libraries in the United States. With very few exceptions, German libraries each continued to develop their own classification schemes.

Main Features of the Sachkatalog

At the time it was introduced, there was hardly a single aspect of the Mainz catalog which did not contradict some generally accepted procedure in German libraries. The following is a list of some of its chief characteristics.

1. It is a public catalog.
2. It is a card catalog.
3. The arrangement of the entries in the catalog is not dependent on the location of the books on the shelves.
4. The notation and the structure of the catalog provide for the extensive use of various types of standard subdivision tables.

5. It is not a pure classed catalog, but in certain sections combines features of the alphabetical subject-term catalog.
6. It includes, besides the basic classified catalog, special catalogs called the *Länderkatalog* and the *Biographischer Katalog*, the first based on a geographical approach, the second on a biographical approach.
7. Access is controlled by an alphabetical subject-term index.

The first three of these points are mentioned only because they are of historical interest and will need only a few comments.

The Mainz catalog was planned from the beginning for the users of the library; it proceeded from their needs and was structured so that it could be used without the intervention of a librarian or at least with a minimum of guidance from the librarian.

The use of cards for the classified catalog was still something of a novelty in the 1920s. Indeed, the pros and cons of the card catalog (as opposed to the book catalog) were still being discussed in the 1930s and the 1940s, and there are libraries in Germany today (notably Heidelberg among the university libraries) which still continue to keep up their handwritten book catalogs. I am, of course, speaking only of the classified catalog—cards were widely used for author catalogs as early as 1900.

In passing, I should mention Adolf Meyer's theory of the *zeitlich begrenzte Realkatalog* (time-limited classified catalog), which, according to Claus Nissen (one of Eppelsheimer's colleagues at Mainz), had some influence on the Mainz catalog.⁶ Meyer recognized that all classification schemes eventually become outdated, and suggested that, rather than trying to update them, there should be an entirely new classified catalog every generation or so. The old catalogs would be preserved as historical sources reflecting the state of knowledge and scientific terminology of specific periods and indexing the books of those periods. A new system would be created for the new literature—the older literature would not be reclassified. Nissen said that under the influence of Meyer's theory it was decided to include in the Mainz catalog only books published after 1815. Some of the libraries using the method today include only stock published after a specific date; however, I suspect that this is done, not because of Meyer's theory, but because of the costs of recataloging. For example, the prewar stock of more than one-and-one-half million volumes of the library of the *Stiftung preussischer Kulturbesitz* is classified by the system of the old Berlin *Realkatalog*; the Mainz method is used only for the stock acquired after 1946.

The separation of the classification of the entries in the catalog from the arrangement and location of the books on the shelves represented a historic change in the theory of the classified catalog. Georg Leyh had long maintained that there was no future for the classified catalog until it was freed from shelf classification.⁷ As long as the two were the same, it was argued, the potential versatility of the catalog, its capacity to change with changes in knowledge, could not be realized.

This means, of course, that besides classification notation, there also has to be a system of *signatures* (we would call them "call numbers"—not "class numbers") to identify and locate the specific books on the shelves. A discussion of *signatures* would get us involved in the numerous shelving systems now used in Germany, and this is beyond the scope of this paper. In any case, the hold of tradition was such that, despite the overwhelming preponderance of closed stacks, the switch to some type of *numeris currens* shelving arrangement (i.e., accession number order, usually within very broad subject groups) was slow and was not accomplished in many libraries until the reorganization following the destruction of World War II.⁸

Dispersal

In some of the early discussions of the Mainz *Sachkatalog*, doubts were expressed as to whether or not the method could be used in a large general library. Post-World War II developments seem to indicate that the larger libraries which have adopted the method have found it flexible enough to serve their various purposes. Today it is used by nine general libraries and ten special libraries. The general libraries are listed below, followed by dates indicating when the method was adopted.

Mainz. City Library, 1919–1929.

Darmstadt. Hessian State Library, 1929.

Trier. City Library, 1937.

Frankfurt am Main. City-University Library, 1946.

Giessen. University Library, 1949.

Marburg. State Library of the Stiftung preussischer Kulturbesitz, 1949.

Fulda. Hessian State Library, 1954.

Saarbrücken. University Library, 1958.

Tübingen. University Library, 1959.

If the reader will locate these libraries on a map, he will see that we can almost speak of an "Eppelsheimer territory," an area spreading out in four directions from the Mainz-Frankfurt district. As far as I know, no general library has adopted the method since 1959, and the period of its dispersal may be at an end.

The flexibility of the method within the more or less traditional framework of German library organization is evident in the wide range of highly specialized libraries now using it. These include the *Institut für Zeitgeschichte* (Munich), the *Senckenbergische Bibliothek* (now at the University of Frankfurt), the *Institut für Auslandsbeziehungen* (Stuttgart), and the *Bibliothek des Priesterseminars* (Trier).⁹ In other words, it is used for special collections as diverse as religion, medicine, foreign relations, and history.

The above does not exhaust Eppelsheimer's influence. His method played a part in the thinking of Hans Sveistrup, whose classification system is used in modified form at the University of Hamburg; the library of the University of Kiel has adopted a version of Eppelsheimer's *Schlüssel* (which I will explain below); and an examination of Heinrich

Roloff's description of the new catalog at the State Library in East Berlin indicates traces of the Mainz method.¹⁰

The Method

It seems to be a basic maxim of German librarianship that no classification devised for another library could possibly be usable in one's own library without some modification (if indeed it is usable at all). Thus, the libraries which have adopted the Eppelsheimer method have each made their own variations. For this reason, I will try to demonstrate the practical application of the method by drawing on examples from several of the libraries which use it. It would be pointless, and probably impossible, to mention here all of the variations which have been introduced.¹¹

From Eppelsheimer's own discussion of the Mainz catalog, it is clear that he recognized that what was needed at the time was not a rigid, inflexible system (i.e., a printed schedule such as the classifications of Otto Hartwig or Dewey), but a method which librarians could use to create their own systems. To be precise, then, I must emphasize that I am talking about a *method* for constructing a catalog, not a classification scheme or schedule, for each library which uses the method creates within its framework its own classification schedules.

The Mainz method as it is used by most libraries today is based on a complex of three interrelated catalogs and an index, providing access by subject, person, and place.

1. The classified subject catalog (*Systematischer Katalog*).
2. The geographical catalog (*Länderkatalog*).
3. The biographical catalog (*Biographischer Katalog*).
4. The index (*Schlagwortregister*).

The complete complex, in Eppelsheimer's original terminology, is described as a *Sachkatalog*. This term means "subject catalog," and in current usage a *Sachkatalog* may be either a classified subject catalog or an alphabetical subject-term catalog. The first part of the Mainz *Sachkatalog* is identified as a *Systematischer Katalog*—literally, a "systematic catalog," a term synonymous with the Anglo-American term "classified catalog." Some libraries using the method have felt the need for a fourth catalog, an *Ortskatalog*. This is a catalog of entries for specific places, usually cities, arranged alphabetically by place name. It has also been suggested, but as far as I know never realized, that a "time" or "epoch" catalog is needed—this would be a catalog which cuts across subject and place to group material as a subdivision of historical periods.

The Classified Catalog

In the classified catalog (*Systematischer Katalog*), the first level of display consists of traditional concepts roughly analogous to the main classes of familiar U.S. classifications. These are variously referred to in the literatures as *Sachgebiete*, *Hauptgruppen*, and *Fächer* (the libraries using the method are not always consistent in their terminology).

These can be loosely identified as "subject areas" or "groups," and I will use these terms rather than the term "class," since the latter term implies a philosophical or logical base which is lacking in the Mainz method.

A certain uniformity in terminology is beginning to emerge in the more recent literature about the method (see the works of Brall and Berninger in our bibliography). Some of the terms are not inherently very meaningful out of context, but within the method they are useful for consistency. The following example will introduce the terminology and notation of a subject area and its first two subdivisions.

<i>Terminology</i>	<i>Notation</i>	<i>Subject</i>
<i>Sachgebiet</i> (Subject area)	nat	Natural sciences
<i>Grossgruppe</i> (Large group)	nat B	Physics
<i>Hundertgruppe</i> (Hundred group)	nat B 1900	Acoustics

The original Mainz catalog contained twenty-four subject areas. The method is such that these larger units can be changed without too much difficulty, and later Mainz reworked its catalog into twenty-six subject areas. No two libraries using the method have adopted the exact same series. The choice of subject areas is not based on any philosophical concepts of the structure of knowledge, on any encyclopedic categorizations, or on the ancient university faculties (which lie heavily encrusted at the base of so many classification systems), but simply on what subject areas the specific library collects—the subject areas are practical and pragmatic. The approach at Mainz could possibly be described by some idea along the lines of the "literary warrant" (Hulme) or "consensus" (Bliss) within the framework of the purpose of the specific library.

In the catalog, these subject areas are arranged in alphabetical order—a radical departure (though not without precedent) from the more common hierarchical or logical order. The theories of Rudolf Focke, published around 1900, had already accepted the idea that the sequence of main classes was not of any great practical significance.¹² At this level, then, the basis of the Mainz method is nothing more than an alphabetical list of terms identifying subject areas.

Each subject area is identified by the first few letters of the term identifying the area. This type of "notation" gives the catalog its flexibility at this level, permitting the addition or deletion of subjects without the need for overhauling the whole structure (as would be the case, for example, with the Library of Congress classification). Thus, the procrustean bed of classification notation, which has been such an anathema to most German librarians, is avoided at a point where there is no real justification for its use. Here, as an example of one library's choice of subject areas, is a list of ten of the nineteen subjects used in the catalog of the University of the Saarland.

<i>Notation</i>	<i>Subject area</i>
allg	<i>Allgemeines</i> (General works)
geog	<i>Geographie</i> (Geography)

gesch	<i>Geschichte</i> (History)
math	<i>Mathematik</i> (Mathematics)
med	<i>Medizin</i> (Medicine)
nat	<i>Naturwissenschaften</i> (Natural sciences)
recht	<i>Rechtswissenschaft</i> (Law)
soz	<i>Sozialwissenschaften</i> (Social sciences)
sprach	<i>Sprach- und Literaturwissenschaft</i> (Language and Literature)
tech	<i>Technik</i> (Technology)

It is possible for each library to make its own variation on this main group structure (e.g., the City-University Library of Frankfurt uses thirty-one subject areas). One could, for example, elevate economics to a *Sachgebiet* by pulling it out of *soz* and setting up a new subject area *wirtsch* (*Wirtschaft*), or pull biology out of *nat* and set up a new area *bio*, as was later done at Mainz and Marburg. What is done at this level obviously affects all subsequent decisions.

Each of these subject areas is then subdivided systematically by whatever method is appropriate to that particular area of knowledge. There is no overall theory as to how this is to be done. The catalogs which we examined were based on more or less familiar divisions of common practice. The groups of this second level (i.e., the *Grossgruppen*) are identified by a series of capital letters. Here, for example, are the *Grossgruppen* of the subject area *nat* as used around 1927 at Mainz, obviously a traditional sequence found in many classifications.

nat	<i>Naturwissenschaften</i> (Natural sciences)
nat A	<i>Allgemeines</i> (General works)
nat B	<i>Physik</i> (Physics)
nat C	<i>Chemie</i> (Chemistry)
nat D	<i>Geologie und Mineralogie</i> (Geology and mineralogy)
nat E	<i>Biologie</i> (Biology)
nat F	<i>Botanik</i> (Botany)
nat G	<i>Zoologie</i> (Zoology)

As many letters are used as are necessary for the series of large groups. If the twenty-four letters do not supply enough divisions, it is theoretically possible to use two letters (e.g., *nat A*, *nat AA*, *nat AB*, *nat B*, *nat BA*, etc.).

These large groups are again subdivided into conventional subareas. The arrangement at this third level is also classified. Each subdivision is assigned to a block of 100 numbers, hence the term *Hundertgruppen*. These third-level groups may be illustrated by turning to an excerpt from the expansion of *nat B* as shown in the first published account of the Mainz catalog.

Physik

nat B 00	<i>Physik, Allgemeines</i>
nat B 300	<i>Theoretische Physik</i>
nat B 500	<i>Messende Physik</i>
nat B 1100	<i>Mechanik</i>

The above series continues through *nat B 8500*, with a total of forty-four subgroups, in some areas separated by vacant numbers, as above, to allow for insertions when and if necessary. There is no fixed number of divisions at this level, as many are used as are necessary for the subject being classified.

It is at this point, going into the next series of subdivisions, the fourth level, that the method departs from subject classification and goes into a mechanical sequence of external and internal form divisions. Thus, for each of the above forty-four divisions of *nat B*, there is a block of one-hundred numbers coordinated with a table of standard subdivisions. This brings us to the *Schlüssel*.

The term *Schlüssel* has been widely accepted in German classification literature.¹³ Literally, a *Schlüssel* is a key, and the word suggests that the list of standard subdivisions with its standard notation is, for the user of the catalog, a "key" to its structure. In the Mainz method, there is a general key (the *Allgemeiner Schlüssel*) which can be applied to any subject at the *Hundertgruppen* level of the classified catalog (this same general key can also be used in the geographical catalog), and there are also special keys for the geographical catalog and the biographical catalog.

The Mainz *Allgemeiner Schlüssel* consists of ninety-nine subclasses for standard form divisions (the "hundred" in the term *Hundertgruppen* is misleading): 1 through 88 being for the formal divisions, with a block of ten numbers; 89 through 99, at the end to accommodate a series of alphabetically arranged subject terms. All or part of this key is applied, whenever appropriate, to each group at the third level of every subject area. Each library that has used the method has worked out its own details, but each follows the broad outlines as set out by Eppelheimer. The following is the outline of the general key as it is used at the University of Giessen.

- 1-8 *Hilfsschriften* (Auxiliary works, bibliographies, etc.)
- 9-11 *Allgemeine Sammelwerke* (General collections)
- 12-23 *Organisationsformen* (Forms of organization)
- 24-26 *Methodik u. Geschichte d. Wissenschaft* (Methodology and history of the subject)
- 27-35 *Materialsammlungen* (Collections of material, sources, etc.)
- 36-39 *Regionale Darstellung* (Regional presentations of the subject)
- 40-63 *Geschichtliche Darstellung* (Historical presentations)
- 64-70 *Systematische Darstellung* (Systematic presentations)
- 71-73 *Theorie* (Theory)
- 74-79 *Praxis* (Practice)
- 80-82 *Statistik* (Statistics)
- 83-85 *Erziehung, Uebung, Unterricht* (Education, exercises, instruction)
- 86-88 *Technik* (Technology)
- 89-99 *Teil u. Fragen der Gruppe* (Details and special topics)

I will not give a complete list of the contents of this general key, but only enough to suggest something of its structure. The *Hilfsschriften* begins as follows.

- 1 Bibliographies
- 2 Periodicals, yearbooks
- 3 Calendars, almanacs
- 4 Dictionaries, lexicons
- 5 Directories, indexes, etc.
- 6 Formularies, tables, charts, etc.

These can be understood in terms of the standard form division tables of Dewey DC, but with several important qualifications. Unlike Dewey DC, though they can be applied to any subject, they can only be applied at one level, the *Hundertgruppen* level; also, the numerical notation is not added as in Dewey, but is already built into the scheme. Here are several examples.

- nat B 1901 A bibliography of acoustics
- nat B 1904 A dictionary of acoustical terms

It is possible to refine these formal classes if necessary. The Frankfurt library, for example, uses the following breakdown of section 4 of the *Schlüssel* by introducing a notation using small letters.

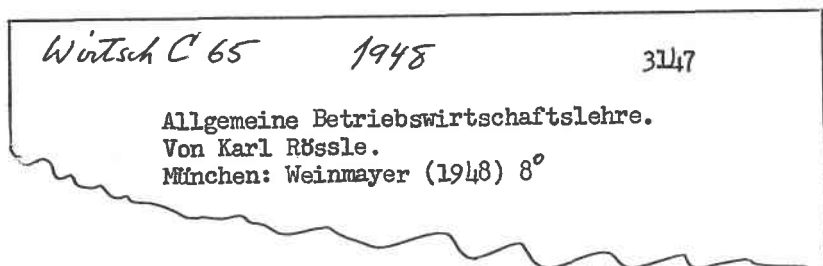
- 4 Lexicons, dictionaries
 - 4a Multi-lingual dictionaries
 - 4b Lexicons
 - 4c Who's who, etc.
 - etc.

For material falling into these subdivisions, this is the end of the classification, there are no smaller subdivisions (but, as we shall see, the series at the end of the *Schlüssel* does permit detailed subject indexing). Once in these slots, the titles are usually arranged chronologically by the year of publication (usually with the most recent date at the front of the file). When necessary, the entries may be arranged by some other device before going into the chronological date-of-publication order—the cards may be arranged by place, name of organization, language (in the case of dictionaries), etc.; it all depends on the subject involved. Example 1 is from Marburg.

065 wirtsch	1948	3147
Allgemeine Betriebswirtschaftslehre. Von Karl Rössle. München: Weinmayer (1948) 8°		

Example 1

The *signature* (call number) of the book is the number in the upper right-hand corner of the card. At Marburg, group C in the economics section (*wirtschaft*) is for *Betriebswirtschaftslehre* (the study of business economics); the 65 is from their general key and indicates "systematic presentations of a popular nature." This is the usual physical format of the filing information across the top of the card, though generally this information is penciled in, and the subject area abbreviation may be in front of, rather than below the letter identifying the group as shown in Example 2.



Example 2

The Monograph Series

The series at the end of the general key, the slots between 89 and 99, need special comment. Eppelsheimer called this the *Monographienreihen* (i.e., series of monographs)—it is the most controversial part of the method. It is at this point that the method again returns to alphabetical subject-term indexing. It might be helpful to begin by making a comparison with the "special topics" device used in the Library of Congress classification.

- Corporation finance.
 Administration—continued
 HG 4028 Special, by subject, A-Z.
- e.g. .B2 Balance sheets.
 - .C6 Contributions to welfare services.
 - .D4 Depreciation policy.
 - .D5 Dividends. Stock dividends.

In the Mainz method, the special topics are not translated into an alpha-numeric Cutter notation; instead, the subject term itself is written across the top of the card and serves as the filing element.¹⁴

Here is an example from Frankfurt. The subject area *soz* (social sciences) begins with *A: Allgemeines* (general works) which uses the general key *I* through *99*. Number *89* is for "social sciences in relation to other subjects" (i.e., *Beziehung zu*). In the group *soz A 89* the following subject terms are used (and others are added as they are needed).

- soz A 89 Anthropologie* (Anthropology)
Automation (Automation)

Familie (Family)
Geographie (Geography)
Geschichte (History)
Kirchengeschichte (Church history)
Krieg (War)
etc.

It is important to note that what goes into the monograph series depends entirely on the structure of the groups at the preceding levels. The point is this: within each subject at the *Hundertgruppen* level, there are many potential subdivisions of the subject, detailed treatments of specific aspects of the subject, special relationships, and approaches unique to the specific subject—none of these can be taken care of by 1 through 88 of the general tables of standard subdivisions.

Practice varies as to how the series is to be treated. The examples given by Eppelsheimer in his 1929 article, and by Nissen in 1937, break the block of numbers between 89 and 99 into smaller groups, each devoted to a specific approach to or aspect of the subject. Nissen shows how the series is treated in such diverse subjects as the food industry, building technology, and photography. Building technology, for example (*tech F*, at Mainz), includes the following in the monograph series.

91	<i>Betonbau</i>	93	<i>Beton</i>
	<i>Eisenbetonbau</i>		<i>Glas</i>
	<i>Fachwerkbau</i>		<i>Granit</i>
	<i>Holzbau</i>		<i>Stein</i>
	<i>Stahlbau</i>		<i>Terrazzo</i>

Under 91, types of buildings classified by structural material are alphabetically arranged (concrete buildings, reinforced concrete, wood structures, etc.); and 93 includes subject terms for specific kinds of building materials (concrete, glass, granite, stone, etc.).

It is clear that virtually every subject at the *Hundertgruppen* level will require a different approach to the organization of the subject terms in the monograph series. Theoretically, we have the possibility, not of one alphabetical subject file, but the possibility of a series of ten (though we suspect that in practice few libraries use all ten files in very many subject areas). Since each file has to have some principle of organization, they are, in effect, subclasses. We also have to keep in mind that a detailed list of subject headings (comparable to our Sears and LC lists) has never been published in Germany. However, librarians have drawn up directions, or *Instruktionen*, along the lines of Cutter's *Rules* for subject headings. Each library prepares its own headings and there is a tendency to depend a lot on what we would call "catchword headings" (i.e., subject terms drawn verbatim from the titles of the books being classified).

The Geographical Catalog

The *Länderkatalog*, as it is generally called (literally, a catalog of countries), was described by Eppelsheimer as a "geographical-historical"

catalog. Inherent in the classified catalog is the dispersal of regional and national scientific and cultural developments throughout the spectrum of major subject classes. It is the purpose of the geographical catalog to bring them back together again. This geographical catalog is also a classed catalog, but one that starts with places as the main classes.

There is, for the geographical catalog, a special *Länderschlüssel* (geographical key). This is, in fact, the broad outline of a classification scheme which can be used with any country. The idea cannot be compared to the Dewey DC area tables, since in Dewey DC the areas become subdivisions of the subject, whereas in the Mainz method the subject becomes a subdivision of the area.

As in the other catalogs of the Mainz method, different libraries using it have developed their own variations of the general procedure. As an example of one version of the geographical catalog, I will turn to the City-University Library of Frankfurt. Major geographical areas are coded with a numerical notation to provide their sequence in the catalog.

100	Germany	300	Africa
101	East Germany	400	America
110	Individual German states and provinces (alphabetical)	500	Asia
190	German Democratic Republic	600	Australia, etc.
200	Europe, general	700	Polar regions
205	Individual European countries	800	Individual races

These are further subdivided so that each country, or further subdivision as may be appropriate, has its own number: Bavaria is 115, Hessa is 120, Ireland is 230, Gambia is 332, etc. To each country, the following *Länderschlüssel* is applied.

- A *Allgemeines* (General)
- B *Landeskunde, Geographie* (Geography, etc.)
- C *Vorgeschichte* (Prehistory)
- D *Geschichte* (History)
- E *Volkskunde, Völkerkunde* (Folklore, ethnology)
- F *Kulturgeschichte* (Cultural history)
- G *Politik, Oeffentliche Verwaltung* (Politics, public administration)
- H *Sozialwissenschaft* (Social sciences)
- J *Religion, Kirche* (Religion, church)
- K *Pädagogik, Bildungswesen* (Pedagogy, education)
- L *Sprache* (Language)
- M *Literatur, Literaturwissenschaft* (Literature, study of literature)
- N *Kunst* (Art)
- O *Recht* (Law)
- P *Wirtschaft* (Economy)
- Q *Landwirtschaft, Bergbau* (Agriculture, mining)
- R *Spiel und Sport* (Games and sports)
- S *Grosse geographische und ethnische Räume* (Large geographical and ethnic areas)

- T *Staatliche Räume* (Political areas—states, provinces)
- U *Städte und Dörfer* (Cities and villages)
- V *Sonstige geographische Begriffe* (Other geographical concepts—mountains, rivers, etc.)

Each and every one of the above is subdivided with a notation using small letters. *J: Religion, Kirche* is divided as follows.

- Ja History of religion
- Jb Christianity
- Jc Catholicism
- Jd Protestantism
- Je Islam
- Jf Buddhism
- Jg Other religions

These are closely coordinated with the schedules of the classified catalog, so that the small letters of the geographical catalog have the same significance as the equivalent capital letters in the classified catalog. The *Hundertgruppen* of the classified catalog are also taken over intact in the geographical catalog. For example, in the geographical catalog, the education section is related to the classified catalog as follows:

<i>Geographical catalog</i>	<i>Classified catalog</i>
K <i>Pädagogik</i>	paed <i>Pädagogik</i>
Ka <i>Allgemeines</i>	paed A <i>Allgemeines</i>
Kb <i>Didaktik</i>	paed B <i>Didaktik</i>
Kc <i>Schulwesen</i>	paed C <i>Schulwesen</i>

Furthermore, the classes of the *Hundertgruppen* level of the classified catalog are taken over in the geographical catalog, as is the general key—in short, the whole apparatus of the classified catalog is used in the geographical catalog:

<i>Geographical catalog</i>	<i>Classified catalog</i>
Kb 100	paed B 100
Kb 200	paed B 200
Kb 300	paed B 300

Here are several examples from the Frankfurt geographical catalog.

230	Ireland
230 Q	Agriculture
230 Qc	Stock-breeding
230 Qc 200	Horse-breeding
230 Qc 280	Statistical tables
100	Germany
100 L	German language
100 Ld	Syntax
100 Ld 64	Introduction to German syntax

There is considerable diversity in the various versions of the geographical catalog. This is accounted for, in part at least, by Eppelsheim-

er's original statement, which suggested several different ways in which it could be coordinated with the classified catalog.¹⁵ The close correspondence between the two catalogs (which we have suggested above) is not always possible in all parts of the geographical catalog; at other times (in a small library, or with a subject area that contains few titles), it may be possible but not useful.

The Biographical Catalog

Of the various parts of the *Sachkatalog*, this is the least complicated and can be understood with little difficulty. It contains entries, alphabetically arranged, for the names of persons. Both biographical and critical material are included. The use of persons and their works as subject headings is in practice not much different from the way we do it in the U.S. in our subject heading catalogs. The original Mainz catalog did not collect these entries in a special catalog, but provided locations only within the general key of the classified catalog, thus using biography as a subdivision of the specific subject.

Almost all libraries using the method, including Mainz, now have separate biographical catalogs (sometimes called a *Personenkatalog*). These are generally set up with a "biographical key" to handle all material encountered when dealing with persons about whom vast amounts of material have been published. Darmstadt, for example, has a table, with a notation from 1 through 99, covering auxiliary works (dictionaries, bibliographies, etc.), general collections, organizations, sources, biography, etc.

The following is the first part of the biographical key used at the University of Tübingen.

- 1 *Bibliographie*
 - 2 *Bibliothekskataloge, Auktionskataloge*
 - 3 *Zeitschriften, Reihen, Kalender, Almanache*
 - 4 *Wörterbücher, Lexica*
 - 5 *Gesammelte Abhandlung, Festschriften*
- etc.

Among the variations in the treatment of biography we will only mention the University of the Saarland, which does not have a separate biographical catalog, but includes all of this material in section 33 of the general key of the classified catalog. For this "class" they have developed a special subkey, using an alphabetical notation.

- 33 A *Allgemeines* (General works)
 - 33 B *Leben und Werk im Allgemeinen* (Life and works, general)
 - 33 C *Biographische Einzelheiten* (Biographical details)
- etc.

This continues with a detailed schedule. The first section, 33 A, includes such material as bibliographies, library catalogs, indexes of works, serials, archives, festschriften, etc.

The Register

There is no need to comment here extensively on the index, or *Register* as it is called. It is a card index used both by the librarians and the public. It indexes in one alphabetical file the various catalogs (classified, geographical, and biographical), including terms for the subject areas and various subgroups of the classified catalog as well as the terms used in the monograph series, along with see references and see also references. For the classifier it is a method of controlling the growth of the classification and its structure and helps insure consistency in applying the schedules and subject terms.

Control of Multiple Entries

A minor but essential detail for the librarian is the method of keeping track of multiple entries. This is sometimes done with a rubber stamp device which permits the librarian to pencil in the added entries. For example, at Giessen, the book by Ludwig Erich Scmitt, *Die Germanistik an der Universität Marburg* (Marburg, ca. 1956), is classified in *paed E 262 Marburg (18, Germanistik)*. The device shown in Example 3 is placed across the lower part of the card, indicating additional entries in the language class (*sprach B*) and in the literature class (*lit C*), a total of three entries in the classified catalog (with no entries in the geographical or biographical catalogs).

SyK	LiK	BiK
3		

Sprache B 1025
lit C 125

Example 3

Conclusion

This short introduction to the Mainz method does not do justice to the detail and flexibility of which it is capable, or to the ingenious ways that it has been adapted to fit the needs of various types of libraries. As has been consistently emphasized, it is a method, and this paper has made no attempt to examine specific classification schemes produced by the method. Another interesting problem we have not touched upon is the role of classification in the education and professional life of the librarians of the higher service (i.e., the professional subject specialists, the elite of German librarianship), or in administration and organization. And it goes without saying that the *Sachkatalog* is one of several catalogs, some for public use and some for administration (e.g., the author catalog, usually following the rules of the Prussian *Instruktionen*, a shelflist catalog, and other special subject catalogs and indexes).

As to the use of the catalog by the public, we have very little information—there seem to be no published catalog use studies. This is the crux of the problem, for in the end the only valid criterion for evaluat-

ing a catalog surely must be in terms of how well it serves its users. It would be presumptuous, if not disastrous, if a librarian educated and experienced only in the tradition of the alphabetical subject catalog were to think he could make a constructive critique of an approach based on a philosophy, a theory, and a practice so different from his own. We have, for this reason, tried only to describe the method, and will risk only a few cautious closing remarks.

The one overriding factor behind all thinking that went into the method was the practical problem at hand. This may be why the method lacks a detailed and explicit theoretical base; but implicit in its structure are certain assumptions about classification, about knowledge and how people approach and use knowledge, and about the organization and use of libraries. Generally speaking, many features of the classified catalog emerge simply from the way German libraries are organized, from the way German librarians think about their role in the organization and dissemination of information, and from the structure of the German educational system. In terms of theory, the Mainz method raises some thorny problems: (a) the theory of the classified catalog; (b) the theory of classification; (c) the theory of alphabetical subject indexing; and (d) what happens when (a), (b), and (c) are all involved in structuring one practical working tool.

Although it is seldom specifically referred to as such in the literature, the Mainz method is a complicated variety of what we would call an *alphabetico-classed* catalog. This is the case, not because the main classes are arranged alphabetically, but because of the change to alphabetical subject term indexing at the last level of division (i.e., the monograph series of the general key). This, it seems to me, is the most intriguing part of the method and the one which needs to be investigated further. It is very possible that Eppelsheimer has taken the best of both approaches (classed and alphabetical) and combined them in one catalog which, for the general reader, may be a more useful, a more efficient, and a more intelligible tool than either approach supplies separately. For one thing, the catalog circumvents the most serious inherent weaknesses of the U.S. subject catalog, the wide dispersal of related subject terms.

The remarkably simple notation of the method (which probably proceeds from its practical orientation) is very much at variance with all other major classification systems. It has been characteristic of German classification throughout most of its history that the use of notation has not been thoroughly explored or its potential fully utilized. On the other hand, the German theorists have never made the mistake of confusing a classification notation with the classification itself (which seems to be part of our problem in the U.S.).

Despite the remarkable dispersal of the method, we do not want to give a misleading impression, and the reader should keep in mind that there are more than twenty university libraries in West Germany (not to mention an incredible number of autonomous institute and seminar

libraries which do not turn up in the library statistics), and of these, only four use the Mainz method; there are over eighty libraries classified as *wissenschaftliche Bibliotheken* by the West German *Wissenschaftsrat* (an advisory council on higher education, science, and research), and of these, not more than 25 percent use the Mainz method. Also, there was a tremendous amount of discussion and theorizing about both the classified catalog and the alphabetical subject catalog in Germany between 1900 and 1940, and as important as Eppelsheimer's work was, he was but one of many who made important contributions to the long and involved debate.

Our few reservations notwithstanding, the Mainz method remains a unique phenomenon in German librarianship and its future is assured as long as the traditional classified catalog remains the principal access tool of German libraries. Of Eppelsheimer's many contributions to librarianship and to scholarship, the Mainz *Sachkatalog*, which he created near the beginning of his long and distinguished career, may or may not prove to be the most enduring, but it is certainly the most fascinating.

NOTES AND REFERENCES

In the course of briefly examining the use of the Mainz method in seven German libraries, the author found librarians most courteous and helpful. At the Mainz City Library, Mrs. Helene Leeuwerik was most patient and kind during my two visits to that library. In the notes which follow, the *Zentralblatt für Bibliothekswesen* is abbreviated *ZfB*.

1. Eppelsheimer was born in 1890 in Wörrstadt, Rheinhessen. He is now living in Frankfurt a/M. See C. Köttelwesch, "Defensor Humanitatis: Hanns Wilhelm Eppelsheimer," *Zeitschrift für Bibliothekswesen und Bibliographie* 12:279-83 (1965).
2. Admittedly, though our problems are the same, in the end they cannot be divorced from the social contexts in which our respective libraries operate, and a thorough study of classification would have to take this into account.
3. Plans for a new catalog were instituted in 1909 by the head librarian, Gustav Binz, but work on the *Sachkatalog* did not get underway until the early 1920s, at which time Aloys Ruppel was the new head librarian. Some of Eppelsheimer's coworkers at Mainz who contributed in various ways to the work on the catalog were Adolf Waas, Fritz Tölg, and Claus Nissen.
4. This categorization, which cuts across institutional types (city, state, and university libraries) to include all "scholarly" (as opposed to "popular") libraries, is still in use today, but I think it is probably less valid than it was before the 1940s.
5. The alphabetical subject heading catalog is used by some German academic libraries as a supplementary catalog that includes a selection of the most used literature. This came about, in part, as a concession to the presumed needs of increasing numbers of students. In other words, a number of academic libraries have *both* a classified catalog *and* a subject heading catalog (the universities of Göttingen and Munich are two examples). Only two university libraries have only a subject heading catalog, the University of Erlangen and the Free University of Berlin.
6. Adolf Meyer wrote extensively on the classified catalog in the 1920s. See especially his article in *ZfB* 39:388-99 (Sept. 1922), which is probably the one Nissen was referring to.
7. Georg Leyh was rather insistent on this point and never missed an opportunity to express his views on the matter. The first and main thrust of his attack was

against shelf classification. He discussed the whole problem in its historical context in "Das Dogma von der Systematischen Aufstellung," *ZfB* 29:241-59 (June 1912) and *ZfB* 30:97-136 (March, 1913); and reprinted in his *Aus vierzig Jahren Bibliotheksarbeit* [Wiesbaden: Harrassowitz, 1954] (*Beiträge zum Buch- und Bibliothekswesen*, Bd. 3).

8. It is ironical, to say the least, that even as some of the older universities have taken Leyh's advice only within the last decade or so (i.e., they have abandoned detailed shelf classification in their closed stacks), it has become virtually an article of faith among the librarians of the new universities (those founded after 1960) that the stacks must be open, hence some sort of shelf classification is needed.
9. The catalogs of the *Bibliothek des Instituts für Zeitgeschichte* have been published by G. K. Hall & Co. (the "holdings of this library are on the history of National Socialism, the Third Reich and the Weimar Republic. . . ." For a description, see any recent issue of the Hall Co.'s annual catalog). In its use of the Mainz method, it is less typical than the other libraries discussed in this paper (even to the extent of using a decimal notation in some sections), but most useful to the U.S. student because of the accessibility of the Hall Co. reprint.
10. Heinrich Roloff, "Die Katalogsituation," in *Aus der Arbeit der Deutschen Staatsbibliothek* [Leipzig: Harrassowitz, 1961.] (*ZfB Beiheft* 81) p.60.
11. These variations range from comparatively minor changes, such as the addition of a color code, to major changes involving the structure and use of tables of standard form divisions.
12. Focke's basic writings deal with the foundations of the theory of the classified catalog and the general theory of classification.
13. The typical dictionary definition of a *Schlüssel* includes such translations as "key, code, cipher." Several of the German librarians with whom I discussed the method seemed to think that "key" was a satisfactory translation in the present context. But I am not sure whether or not these technical terms should even be translated, and it might have been better to consistently use the German terms. My discussion of the Mainz key is merely descriptive. The key attempts to verbalize and formalize basic general elements (time, place, person, form, etc.), and the theory behind it invites a more detailed examination.
14. Eppelsheimer referred to these subject terms as *Stichworte*; later writers sometimes refer to them as *Schlagworte*. The use of the two terms in German literature is confusing—sometimes they are used synonymously, sometimes not. The question is whether a given author is referring to a "subject heading" (in our sense) or to a "catchword" from a book title which is used as a subject heading.
15. The use of a numerical notation to identify the main area classes is not a feature of all, or even most, libraries using the Mainz method. More often than not, the countries will be arranged in alphabetical order without notation.

BIBLIOGRAPHY

This selective list does not include references to the numerous but very short discussions of the method in textbooks of library administration, history, and classification, or periodical articles which include only brief discussions. I have, however, tried to include the most important historical and practical material. The arrangement is chronological by date of publication. The works by Brall and Berninger are the best sources for additional bibliographical references.

Ruppel, Aloys. *Die Mainzer Stadtbibliothek in der Nachkriegszeit*. Mainz, 1927. 26p. (Also published in *Monatsblätter der Mainzer Stadtbibliothek*. Bd. 1, Heft 7, 1927.)

Six pages (13-18) are devoted to an account of the method with a historical note on its development at Mainz, written while work on the catalog was in progress by the former director of the library. Drawn from Ruppel's annual reports, it is (as a whole) a fascinating document of German librarianship during the first decade fol-

lowing World War I. Historically important as the first published account of the method.

Eppelsheimer, H. W. "Der neue Sachkatalog der Mainzer Stadtbibliothek," *Zentralblatt für Bibliothekswesen* 46:406-24 (1929).

The major statement about the method by its author, eminently practical and basic. Includes the three *Schlüssel*.

Nissen, Claus. "Der Mainzer Sachkatalog in Theorie und Praxis," in Sigmund Runge, ed., *Beiträge zur Sachkatalogisierung*, p.87-108. Leipzig: Harrassowitz, 1937 (*Sammlung bibliothekswissenschaftlicher Arbeiten, Heft 45*); reprinted Wiesbaden: Harrassowitz, 1969.

Nissen joined the staff at Mainz in 1927 (by which time the basic principles of the method were largely worked out). By the time he wrote this, he had ten years practical experience working with the method. Here he puts it on a theoretical base in terms of Rudolf Focke's theories, and also clarifies some points involved in practical application, especially the monograph series.

Gebhardt, Walther. "Der neue Sachkatalog der Westdeutschen Bibliothek," in Westdeutsche Bibliothek, *Jahresbericht 1950-51*. Marburg, 1951. *Anhang* p.34-41.

This library, now the *Staatsbibliothek der Stiftung Preussischer Kulturbesitz*, was one of the first libraries to adopt the method after the end of World War II. The basis of the collection consists of those parts of the former Prussian State Library which were stored in the West during the war. Only the postwar acquisitions are classified by the Mainz method. This library has the status of a national library and will in time probably become the largest library in West Germany. The eight pages of this report devoted to their classified catalog is an excellent, clear, and precise description. Keep in mind, however, that this report is twenty years old and in the interim their use of the method has changed substantially.

Nissen, Claus. "Die Kataloge der Stadtbibliothek," in Jürgen Busch, ed., *De Bibliotheca Moguntina*, p.39-46. Mainz, 1963.

A short survey and history of the catalogs at Mainz, including those in use before the new method was introduced. Describes organizational and administrative procedures with comparatively little on the structure of the method itself. Principally of historical interest.

Cordes, Hans. "Sachkatalog," in Die Universitätsbibliothek Saarbrücken, *Bericht über die Jahre 1958-62*, p.42-49. Saarbrücken, 1963.

A less detailed description than others listed in this bibliography, but interesting and useful since their version is different from the others in several important details.

Lohse, Hartwig. "Zum Aufbau eines neuen Sachkatalogs nach dem 'System Eppelsheimer' an der Senckenbergischen Bibliothek unter Besonderer Berücksichtigung der Medizin," in Ewald Wagner, ed., *Aktuelle Probleme der Bibliotheksverwaltung* . . . p.102-10. Wiesbaden: Harrassowitz, 1966.

When the library of the Senckenberg Institute was transferred to the new City-University Library of Frankfurt, plans were made to reclassify the collection by the Mainz method (which had already been introduced at Frankfurt). The library is strong in the natural sciences and medicine. This paper deals with problems involved in adapting the method to the area of medical literature.

Berninger, Ernst H. *Die Praxis der Sachkatalogisierung nach der Methode von H. W. Eppelsheimer*. Köln, 1966 ("Hausarbeit zur Prüfung für den höheren Dienst an wissenschaftlichen Bibliotheken dem Bibliothekar-Lehrinstitut des Landes Nordrhein-Westfalen.") 81p.

A very complete description of how the method is used at the City-University Library of Frankfurt. Well illustrated, it is (at least for the U.S. librarian) the

best available description of the structure and physical layout of the catalog. By far the most useful and practical guide available, even though it is restricted to the use of the method at Frankfurt.

Brall, Artur. *Anwendung und Abwandlung der Sachkatalogisierungsmethode Eppelsheimers an deutschen Bibliotheken*. Köln: Greven, 1968 (*Arbeiten aus dem Bibliothekar-Lehrinstitut des Landes Nordrhein-Westfalen, Heft 31*) 147, liip.

Dr. Brall's library school dissertation is the most complete discussion now available, covering its use in the various libraries, and with a fine supplement of different versions of the standard form tables and lists of subject areas. A summary of his study was published in *Zeitschrift für Bibliothekswesen und Bibliographie* 14:316-30 (1967).

Stevenson, Gordon. "The Mainzer Sachkatalog and Its Background," *Library Quarterly* 40:318-39 (July 1970).

A more detailed treatment of the historical background of the Mainz catalog, some discussion of the nineteenth century catalogs which it replaced, and comments on certain aspects of German librarianship which influenced Eppelsheimer's method.

The West German Book Trade: A Survey of Current Trends

JEANETTE M. MOEHN
*Librarian, Montgomery High School
Skillman, New Jersey*

The current West German book trade is a rigidly structured system which had to be entirely reestablished after the war. The present decentralized publishing industry has led to higher book prices resulting in a very slow increase in demand. Because both the reading and the purchasing of books were previously limited to the well-educated stratum of society, publishers as well as book dealers have had difficulty in expanding their sales. The growth of libraries and the paperback boom have also made the market competitive and fostered moves in the direction of mergers.

THE INDIVIDUAL RESTRICTED to the English language will find almost nothing on the subject of current trends in the West German book trade other than a greatly out-of-date report by a Committee of American Book Publishers.¹ This report, while valuable for information on the problems of reconstructing the book industry after the war, fails, however, to discuss in detail the industry after its rebirth. The reader who wishes comprehensive bibliographic coverage of this subject is referred to *Die Fachliteratur zum Buch- und Bibliothekswesen*, Verlag Dokumentation (Munich, 1967); Jürgen Busch, *Bibliographie zum Bibliotheks- und Büchereiwesen* (Wiesbaden: Harrassowitz, 1966); Horst Kliemann and Peter Meyer-Dohm, *Buchhandel, eine Bibliographie* (Gütersloh: Bertelsmann, 1963) (Schriften zur Buchmarkt-Forschung 1); and the bibliography in Helmut Hiller and Wolfgang Strauss, *Der deutsche Buchhandel; Wesen, Gestalt, Aufgabe* (Gütersloh: Bertelsmann, 1966). This paper surveys current trends in the West German book trade.

The disastrous consequences of 1945 and the division of Germany into four military zones virtually destroyed the prewar organization of the book trade. Frankfurt had been the center of the German book trade until the end of the fifteenth century, but by the end of the eighteenth century had lost its leadership to Leipzig, which by virtue of its central location, became an ideal place for book distribution. In 1825 the Börsenverein des deutschen Buchhandels was established in Leipzig as the official professional organization of all individuals connected with the book trade. In 1835 the association began publishing the *Börsen-*

blatt für den deutschen Buchhandel, their official journal, and in 1888, the association began publishing the *Addressbuch des deutschen Buchhandels* (Addressbook of the German Book Trade). In 1912 the Deutsche Bücherei was founded in Leipzig, which since 1931 has published under a new title the *Deutsche Nationalbibliographie* in two series: New Books of the Book Trade and New Books Outside of the Trade. In prewar Germany the book publishing industry was the seventh largest industry.²

After 1945 Germany's division into two parts forced the book trade to go its separate ways. A significant number of publishers, printers, and binders, such as Brockhaus and Reclam, left Leipzig for West Germany; this resulted in a decentralized regional structure. Instead of a centralized Leipzig Börsenverein, the various Länder established their own organizations. At the end of 1945, the military occupation governments granted the first licenses to publish, but production capabilities were severely limited by lack of paper, the destruction of machinery, few good manuscripts, and monetary insecurity. However, in October 1945, the *Börsenblatt für den deutschen Buchhandel* already appeared in Wiesbaden and by the end of 1945 in Frankfurt—Frankfurter Ausgabe (Frankfurt edition)—and in Leipzig. Today, therefore, there exist two official organs of the German book trade.³ In 1948 the book trade gave its organization its traditional name again, Börsenverein Deutscher Verleger und Buchhändlerverbände, and headquarters were firmly established in Frankfurt. Since 1947 the official publisher for their publications, the Buchhändler Vereinigung GmbH in Frankfurt, has been issuing *Börsenblatt für den deutschen Buchhandel*—Frankfurter Ausgabe (twice weekly periodical); *Deutsche Bibliographie* (weekly, semiannually, annually); *Deutsche Bibliographie, Zeitschriften 1945–52* (German-language periodicals); *Das Deutsche Buch* (new books according to subject field); *Adressbuch des deutschsprachigen Buchhandels* (lists German language publishers, wholesalers, and retailers); *Archiv für Geschichte des Buchwesens* (series on the history of the book trade); *Die Barke* (an illustrated book magazine); and *Buch und Buchhandel in Zahlen* (an annual collection of statistics).^{4, 5}

In 1947 the Deutsche Bibliothek was founded in Frankfurt and all West German publishers voluntarily deposited copies of their titles there to enable the publishing of the *Deutsche Bibliographie*, the German national bibliography. In 1955 the name of the official organization was changed to Börsenverein des deutschen Buchhandels, E.V. Its goal is "to uphold and further the welfare of the entire book trade and aid in the fulfillment of its cultural obligations."⁶ Its location is in the Haus des deutschen Buchhandels in Frankfurt. Between 1946–47 the demand for books was largely due to greater amounts of money available, but then after the currency reform in 1948 demand dropped and the paperback book came on the scene. Rowohlt led the way in 1950 in building up an entirely new market in paperbacks.

The West German publishing industry (Verlagsbuchhandel) is now

centered in four cities—Stuttgart, Munich, West Berlin, and Hamburg—with 40 percent of the total publishing.⁷ There are approximately 600 publishers who sell through normal channels and exhibit at the Frankfurt Book Fair. The work of publishers expressed in simplest terms is selection, production, and distribution. It can be assumed that in the belles lettres, about 99 percent of the manuscripts are never published, but all are read.⁸ The possibility of overlooking talent is minimal. The risks are much greater for belles lettres than for specialized literature. But Theodor Dengler pointed out that while much of William Jovanovich's image of the editor (Lektor) is true (*Barabbas was ein Verleger*), the practice of "manipulation" by editors on the work of a poet, author, or scholar as exists in America is seldom encountered in Germany; it would be an insult to an author.⁹ The editor is not permitted to be a critic, and is limited in what recommendations he can make on a manuscript. Unlike earlier editors, today's editors must be aware of not only German-language items but world literature as well. The literary agent as a liaison between author and publisher is accepted in Anglo-Saxon culture, but in Germany he is viewed more as a promoter of books for both the publisher and the author and not as an intermediary.¹⁰ The traditional close ties between author and publisher still exist in Germany. Publishers also initiate works where a sales possibility exists.¹¹

While it cannot be denied that the age of great personalities in publishing is declining, the various publishing houses have even today preserved a certain individual character (*Verlagsgesicht*). Specialized firms publish only technological and medical books, children's books, or theological books; this often originated from the fact that the publishers themselves had a background in special fields. Therefore, the publisher's (editor's) selections often coincide with his *Verlagsgesicht*. It behoves the publisher to remain within the bounds of his specialized areas of activity for the sake of his authors as well as his own integrity. There are to be sure "universal publishers" such as Hanser and Piper, as is the rule in America, but most firms were founded by individual publishers as independent nonstock companies. A few corporations developed mostly as a result of inheritances. The smallness of much of the West German publishing trade is exemplified by the fact that in 1958 more than half of the publishing houses in the Federal Republic of Germany released only one or two books; however, their part in the whole book trade was only 7.4 percent.¹² According to a trade census in 1960, only 8 percent of all publishers had more than fifty employees but these 131 firms handle about 57 percent of all the activities in the publishing trade; 65.5 percent of the publishers have fewer than ten employees and 46.5 percent fewer than five!¹³

The image of a publishing house is created not only by the ambitions of the publisher himself but also through houses that merge. For example, Julius Springer developed a medical division by buying out J. F. Bergmann, August Hirschwald, F. C. W. Vogel, and Wilhelm Engelmann between 1917 and 1931. In literature, for example, the various

genres became specialties of individual publishers: naturalism with S. Fischer Verlag, neo-romanticism with Insel-Verlag, and expressionism with Kurt Wolff Verlag. Religious and theological publishers have developed an extensive book trade of their own.¹⁴ While upholding their reputation in specific fields, many publishers have also expanded into other areas as well.

A peculiarity of the West German book trade is the fixed book price. In 1888 the Kröner Reform established strict regulations for the publishers regarding setting the book price and various market regulations. While publishers and booksellers have been opposed to this law for years, the crisis became acute in 1962 when the government published its Kartellbericht (cartel report) (*Bericht der Bundesregierung über Änderung des Gesetzes gegen Wettbewerbsbeschränkungen*. Deutscher Bundestag 4. Wahlperiode. Drucksache IV/1967. v.22.8.1962). Contrary to what the original law was intended for, this official report declared that price-fixing actually allows a relatively high profit margin and competition is intensified.¹⁵ The publisher sets the store price of each book and the bookseller is legally bound not to sell under this price. As shall be shown later, there are ways of getting around this restriction, but for the *Sortiment* (bookstore), the law is binding. The bookseller gets his discount which varies from 25 percent to 45 percent of the price of the book. It has been maintained that the risks of both the publisher and the bookseller justify high book prices. Besides the discount for the *Sortiment*, production costs, royalties (usually 10 percent), and general costs, such as advertising, shipping, and taxes are calculated in the store price. The publisher generally makes a profit only after the second and subsequent editions. Thus, there is a great risk in publishing "literary debutantes." This is well illustrated by the fact that in 1960 of a total of 22,524 titles published in West Germany and West Berlin, only 4,885 were first editions.¹⁶ A good portion of the books offered in the trade are translations—in 1964, 3,082 translated works appeared in Germany in contrast to 1,605 in 1959; that is, 11.7 percent of the entire book production.¹⁷ The largest portion is naturally in the belles lettres, juvenile, and religion with 70.9 percent of the translations in these areas.¹⁸ Book production in 1964 can be characterized by the following chart.

26,228	titles published
5,865	in belles lettres
20,363	in specialized and academic literature
6.7%	school books
5.9%	juvenile literature
6.7%	religion and theology
5.5%	law
4.5%	science
3.9%	technology, industry, and trade
6.8%	history and culture. ¹⁹

On 5 September 1965 a new copyright law was enacted to aid publishers in having somewhat more flexibility in what could be published.²⁰

Royalties are calculated from the fixed store price and are paid either semiannually or annually depending on sales. It is not only important from an economic point of view to carefully calculate the store price of a book, but for the sake of the reputation of a publisher, manuscripts are thoroughly proofed for intellectual and grammatical-stylistic accuracy before a book is put on the market. With a relatively high price for a book, publishers cannot afford to tarnish their names with poor books. There is not only close contact between publishers and authors, but also with booksellers who often may read over a manuscript and make suggestions concerning the possibility of wide sales. The publisher in Germany must be able to calculate exactly the margin between *Geist und Geld*.²¹

Book distribution in West Germany also has a character of its own. Long before the appearance of a book, the advertising campaign begins. Announcements are made to the press and to other public media, and prospectuses, circulars, and galley proofs are sent to the booksellers. Prepublication announcements also appear in the *Börsenblatt für den deutschen Buchhandel*. Since most books in Germany appear in the fall and spring, publisher's agents visit the booksellers with whom their firms have connections generally only twice a year. This is in contrast to England, where books appear regularly all year and agents visit booksellers four-six times a year. Thus, in Germany, the time from receipt of a manuscript until its appearance usually takes six months! (In France, it only takes four-six weeks because of a dominance of paper-covered books and uncut pages.)

The most frequently used way of aiding the distribution of books is the *Sonderprospekt* (special prospectus) to inform interested persons about the book and its author; this is used for new titles or new editions. Older books get a *Sammelprospekt* (collective prospectus) or are listed in publisher's catalogs. Various booksellers also have their own catalogs; the publisher must thus consider carefully in which of the various catalogs he wants to list his titles. The bookseller will voluntarily select interesting books for his catalog; this is particularly important for the smaller booksellers who do not have the *Deutsche Bibliographie* and other bibliographies which show the entire German-language book market.

The usual promotion method of a title is through the press, radio, and television. When the publisher also prints newspapers and magazines, he has the added advantage of promoting his own titles via that media. The newspaper and magazine market is a separate and large area in itself.²² A survey conducted by the Börsenverein in 1964 revealed that the following ways of advertising exerted the greatest influence on book sales.

television	16.5%	prospectuses and catalogs	19.3%
radio	12.5%	publisher's blurbs	9.0%
press	18.8%	local associations of book	
display windows	22.5%	dealers	1.4% ²³

The Börsenverein also periodically publishes subject catalogs to bring the various subjects together regardless of publisher.

While booksellers are obligated to abide by the store price set by the publisher, the publishers in turn are not permitted to sell directly to private customers. Thus, individuals as well as libraries and academic organizations must order through the bookseller with certain exceptions which will be discussed later. Magazine distribution is also controlled by the bookstores. The smooth-running relationship between publisher and bookseller is maintained by the agents who make visits twice a year to introduce new books, take orders, and keep abreast of sales. This rigidly structured system is legalized by the *Buchhändlerische Verkehrsordnung* (Book Trade Business Regulations). An important book for booksellers and publishers is the *Kreditliste des deutschen Buchund Musikalienverlages*, which gives information about the commercial and financial status of all West German book and music publishing firms as well as important foreign firms. This appears annually with monthly supplements. In an attempt to rationalize the book trade after the war, the *Buchhändler-Abrechnungs-Gesellschaft mbH* (BAG) was established in Frankfurt to coordinate and centralize the book trade. This is an exchange place for the wishes of publishers and booksellers; its effectiveness is naturally limited to only members, and unfortunately, many booksellers and publishers are not members. Horst Kliemann, a historian of the book trade, has characterized publishing as the only "black art" in our times with its almost magical possibilities of influence and effect.²⁴

The "distributing book trade" (*verbreitende Buchhandel*) includes both wholesale and retail booksellers. The various kinds of retail booksellers shall be discussed first: *Sortiment* (bookstore), railroad station booksellers, the travel and mail-order trade, the subscription trade, the antiquarian book trade, the lending libraries, and the book clubs.

The *Adressbuch* for 1965/66 listed 3,872 *Sortiments* in 993 places, half of which are communities of under 75,000 population.²⁵ These stores are all members of the Börsenverein; outside of the regular book trade are about 8,000–14,000 stores which sell books among other things, but these are important because annually about 30 million books are sold outside of the *Sortiment*.²⁶ Bookstores are of all sizes but all booksellers must be familiar not only with current titles, but academic trends as well. For new books, the most helpful tool is the *Börsenblatt für den deutschen Buchhandel*—Frankfurt and Leipzig editions. The bookseller makes a selection from the total publishing output in view of his clientele; he therefore has certain "bread articles" and "best sellers" as well as others which do not sell themselves. A belletristic bookseller relies on recommendations from the publishers, on criticism, and partly on examining galleys himself. Display windows, it has been shown, exert the strongest influence on sales—particularly in small towns.

Not only must the bookseller be sensitive to customer's needs, but he must be able to sense potential sales possibilities. For example, the book by Ceram, *Götter, Gräber, und Gelehrte* (Gods, Graves, and Scholars),

awoke a great popular interest in archeology and stimulated the production of many other books on this subject. Any book may be ordered through a *Sortiment* and, in its present decentralized form, the bookseller must rely on the *Barsortiment* (wholesale bookseller) to supply titles not in stock. There are about sixty *Barsortiment* but of these about three or four play a prominent role. In large cities, a book may be obtained within minutes or in a few hours. Of the entire turnover in the book trade, about 10–15 percent goes through the *Barsortiment*.²⁷ Only magazines and school books are ordered by the retail booksellers directly from the publishers.

The *Bahnhofsbuchhandel* (railroad station book trade) is of particular importance in helping the paperback trade and foreign books to reach the masses. There are about 1,000 places where books are sold in the stations but these are operated by about 220 firms—the only way for these small operations to exist.²⁸

The *Reise- und Versandbuchhandel* (travel and mail-order booksellers) is of particular importance in West Germany because many either have no access to a *Sortiment* or are hesitant to enter a *Sortiment*. The reasons for this will be discussed later. The traveling book salesman visits homes, factories, and small towns to sell mainly encyclopedias and reference books as well as sets of books, such as whole series by one author or a series on one subject; he sells on a subscription basis. The *Versand* (mail-order booksellers) concentrate more on specialized titles such as literature useful to the various trades, important scientific books of interest to doctors, lawyers, notary publics, auditors, tax advisers, and schools and libraries. Between 60–80 percent of all specialized and reference books are sold this way.²⁹ These latter mentioned booksellers sell mainly by prospectuses, newspaper advertisements, and catalogs. These two “personalized” forms of bookselling achieve particular importance because there are about 25,000 communities in which there are about 4,000 bookstores and these are divided among about 1,000 cities. Therefore, there are around 23,000 communities without bookstores.³⁰

The *Werbende Buch- und Zeitschriftenhandel* (subscription sales of books and newspapers) has representatives who seek to gain subscribers all over the country. With the growth of the travel and mail-order business, subscription sales are now chiefly limited to magazines and records. There are about seven million subscribers to magazines and 150,000 members of record clubs.³¹

The antiquarian book trade has a special status in not being bound by the fixed book price. Its function is to assemble worthy out-of-print scientific books, magazines, manuscripts, graphic drawings, and beautiful books of all times and lands. The business of the antiquarian rests entirely on his personality. For example, Otto Harrassowitz was one of the leading academic antiquarians before the war and became the main bookseller to American libraries. He died in 1920. Thirty years later, after the war, the firm (now in Wiesbaden) has established its reputation again.

There are various kinds of antiquarian book dealers: *Bibliophile Antiquariat* is the standard rare book dealer; *Kunstantiquariat* deals with old art objects; *Wissenschaftliche Antiquariat* deals with academic texts, has an export business, and is generally located in university towns with close contact to the university bookstores; *Zeitschriftenantiquariat* handles magazines and is often a part of the previous kind; *Moderne Antiquariat* sells books no longer kept in stock at the *Sortiment* and has close ties with the mail-order book dealers—often called the *Ramschmarkt* or “second market” with about 5,000 titles always available with an annual replacement of about 1,500.³² The *Grossantiquariat* takes an entire stock of books from a publisher that is no longer selling in the *Sortiment* and then distributes to the “modern antiquarian” dealers; the *Auktionshaus* is a book auction firm which sells rare and valuable books and is in close relation with the *Bibliophile Antiquariat*. Their organization, the Verband deutscher Antiquare, Autographen und Graphikändler, was established in 1960 and holds regular fairs in Stuttgart.

The *Leihbuchhandel* (lending book trade) is concerned with the *Leihbüchereien* (commercial lending libraries), who charge a fee for borrowing a book. These libraries existed as far back as the seventeenth century in Germany when public libraries hardly existed. These libraries buy books from either a publisher or a wholesaler and must loan a book at least twelve times to recover the price.³³ Thus, there is an emphasis on fast turnover and profit. Unfortunately, their “cultural responsibility” has become in many instances merely a business with the book being treated like any other merchandise. Since these persons are not trained in the book trade, they feel no obligation to act otherwise.

It has been the opinion of many that the growth of these commercial libraries has weakened sales of books. Perhaps an unfortunate consequence of this development is that popular writing has been accepted in even some city libraries as a result of demand for such literature. Originally, public libraries had been created to counteract this dubious influence exerted by the mass production of trivial literature. Public libraries cannot overlook the fact, however, that there are a notable number of reputable lending libraries which do have high standards.

Last are the *Buchgemeinschaften* (book clubs), which obtain a license from a publisher to sell certain works only to their members. At the present time there are seventeen important clubs in West Germany, West Berlin, and German-speaking areas of other countries with a total of 5,300,000 members.³⁴ The Bertelsmann Lesering is the largest. They provide a limited choice of titles at cheaper prices, which is to some extent competition for the *Sortiment*, but the retail bookseller still retains his importance as an adviser and as a promoter for less renowned authors. It is the hope of the booksellers that eventually club members—who are generally less well educated than the standard clientele—will “graduate” to become “free book buyers.” This is a phenomenon in Germany which is rooted in tradition and will be discussed later. In every fourth West German family is a member of a book club.³⁵

Helmut Hiller contradicts those who predict that the age of home libraries is dead because of the rise of public libraries. The fact is, he states, that in West Germany only 3 percent of the population uses the *öffentliche Büchereien* (public libraries)—earlier called *Volksbüchereien*—and those who do use the library borrow only 2.6 times a year.³⁶ With the growth of informational and didactic books, borrowing such material from a library is inconvenient and the urge to own this type of material is increasing. The Institut für Demoskopie (Institute for Public Opinion) reported that in 1968 the average number of books bought by adults in Germany was 3.8; this shows that in spite of numerous competing spare-time activities, many books are still bought for personal possession.³⁷ The book clubs encourage this tendency; the Institute further reported that over half of the book club members found it attractive to choose books in the privacy of their homes.³⁸

A peculiarity within the framework of the book clubs is the *Wissenschaftliche Buchgesellschaft* (Academic Book Club) in Darmstadt. At cheaper prices, it releases academic books which it publishes itself in cheaper reprint editions by license from other publishers. Often subscriptions are taken first to detect possible sales for a title. The wholesale book trade also has a character of its own. The *Kommissionsbuchhandlung* (dealer who works for a commission) is an independent agent of publishers who receives a commission for his costs in distributing books to bookstores. Historically, Leipzig and Berlin had been the centers of the commission system.³⁹ The *Barsortiment* is a wholesale bookseller who buys and sells books at his own risk without commission. He generally has 80,000–100,000 titles in stock and can cover the demands of the *Sortiment*. He also receives a discount from the publisher and gives the retail bookseller the fixed discount from the publisher. The difference in the discounts is his profit. Its centers are in Stuttgart, Munich, Cologne, Berlin, Hamburg, and Frankfurt. The *Grossbuchhandel* (general wholesaler) deals chiefly with stores which sell books among other things—places which have no direct knowledge or relationship with publishers. He publishes an annual catalog, but he generally receives less of a discount than the *Barsortiment*.

Thus far, the author, publisher, and bookseller have been discussed. The book has been viewed as merchandise and its value seen in economic terms. Traditionally, in Germany the book has had limited appeal and generally a defined audience, i.e., the educated. It is only relatively recently that the book has become a true market item with expanding sales possibilities. Therefore, the socio-cultural aspects of the book in society have come to the forefront.

There is a great deal of uncertainty about a broad reading public in Germany. Although most Germans read newspapers and own radios and televisions, many neither read books nor own any and about 34 percent have never bought a book.⁴⁰ Another source entitled *Buch und Leser in Deutschland* (Books and Readers in Germany) reported that in 1964, 28 percent of those surveyed owned no books.⁴¹ It has been shown that

book buyers with advanced education practically without exception buy their books in bookstores, those with some education mostly through book clubs, and those with only a grade school education dislike bookstores the most!⁴²

The question emerges: Are there too many books on the market or too few readers? Education and income are ultimately related to the number of books owned. Klaus Doderer remarked that children and youth generally read more than adults and the less the schooling, the more attraction toward trivial literature. Thus, both quality and quantity of reading are related to the educational level.⁴³ Günther Marissal comments that young adults even more so than many adults shy away from bookstores because there "they have the feeling they are being examined by someone who knows everything better and sees through their own ignorance."⁴⁴

The book is no longer regarded in Germany as a quasi-sacred cultural edifice or as a social status symbol, but only as a consumer item with short-lived informational content. This, in turn, affects authors who realize that *Kathederdeutsch* ("professorial German") is becoming less and less communicative—more a barrier than a bridge between author and reader. This change is occurring chiefly through the school system, which most agree is in need of a reform. Klaus Doderer has the following opinion.

The German school appears to me by its one-sided orientation "falsely programmed" toward a traditional, aesthetic education, an underestimation of the interests of youth, a cramping into stratified educational levels, and a misrepresentation of the book as a means of information.⁴⁵

The pupil's texts and the word of the teacher were traditionally the vehicles for learning. Most schools do not have libraries, thus strengthening the authority of the classroom text.

Werner Adrian points out the trend for the future. Since the formulation of educational policies is left up to the individual *Länder* now, the publisher of school texts faces even more insecurity as well as increasing burdens of familiarizing himself with educational policy. With the extensive curriculum revisions occurring now, the school of the future will no longer lead to special existence next to society, but will be fully integrated into society. The school book will lose its position as the only source of information; to students the book will no longer symbolize the pressure to study for exams or part of the ritual for fulfilling social obligations to finish school. In the early 1970s, a large number of multimedia study packs will be offered to schools.⁴⁶ One of the principal concerns of the book trade now is to work with the schools to attract new readers.

Although it is claimed that book prices are increasing at a slower rate than other merchandise, hardbound books appear expensive because of the cheaper book club prices and the paperbacks.⁴⁷ With the German population gradually coming to enjoy a book like a glass of beer, the

“paperback explosion” is another important factor in broadening the reading public. However, up until now, paperback sales have still not attracted the poorly educated stratum of the population except among young people. Franz Hinze discusses the paperback market and comments that until now the paperback has had difficulty breaking into the tight sales net of the hardbound book. It remains to be seen, he says, whether the paperback will become truly a “mass book”; perhaps the ready opportunity to buy them will gradually alter the buying patterns of the general public as has already been done with youth.⁴⁸ Gollhardt points out that critics of the paperback claim that this medium has fostered a disinterest in good literature and created a mass culture, but the paperback also has the potential of fulfilling unexpressed information needs as well as influencing a much broader spectrum of society.⁴⁹

The peak period for paperback sales was 1950–57, and now there are complaints of overproduction. According to a survey by the Institut für Buchmarkt-Forschung at the end of 1965, there were 108 German-language paperback series that appeared from sixty-eight publishers, i.e., West Germany, East Germany, Austria, and Switzerland; monthly, about 180 new titles appear.⁵⁰ The 16th edition of the *Katalog der Taschenbücher* (Catalog of Paperback Books) in spring 1968 contained about 10,000 titles, two-thirds of which are belles lettres.⁵¹ As a result of the influence from America, there is also an increasing tendency to bring out new editions of older works and dictionaries in paperback form. While in the general book trade about one in ten titles is a translation, about half of all paperbacks are translations. And, while formerly paperbacks appeared only as a reprint of hardbound editions, now they are coming out more and more as original literature. In number of titles, Goldmann dominates the market with Rowohlt, Heyne, Ullstein, Fischer, and DTV following. These “big” firms have attempted to expand sales by selling in chain stores, supermarkets, gas stations, hotels, etc., a practice which up until now has had a negligible result in Germany.⁵² The chief attraction of paperbacks seems to have been their cheap price rather than having added to the reading public in Germany. However, *Die Zeit* reports that the paperback publishers are raising their prices with Rowohlt setting the pace.⁵³

Up to this point no mention has been made of how scholarly research becomes published. There are no university presses in Germany such as in America and England. Kliemann reported that there are twenty-nine university bookstores in eleven cities and ten of these were already founded before 1800.⁵⁴ Some of these publish, such as Bouvier in Bonn, but generally academic scholars have their work published either through an institute or the regular commercial publishers. Dissertations are another matter, however. University libraries in Germany possess huge numbers of dissertations because they have to be printed. This tempts the book trade to make them objects for financial gain. For example, in 1963, of the 8,800 printed dissertations, 1,073 were published commercially.⁵⁵ Sometimes dissertations even come out in paperback—

especially those of famous persons. The book trade also makes use of older dissertations by putting them in scholarly series. The Wissenschaftliche Buchgesellschaft in Darmstadt for years has been doing a reprint business with important dissertations presently out-of-print. Some dissertations become so well known that they become classroom texts; others become a seller only when the person becomes famous. Theodor Heuss, for example, wrote his dissertation in 1906 and it was commercially published in 1950!

While France, England, and the U.S. have organs that regularly review books, Germany does not. The critic plays a special role beside the author, publisher, dealer, and the public. Criticism does not hinder the appearance of poor books, but it can aid good books. Since most books appear in Germany in the few months before Christmas, the few critical organs have no time to review them. The large newspapers and magazines review perhaps five or six books.⁵⁶ This "Christmas business" in Germany, when books are bought chiefly for gifts, is different from France, for example, where books are bought to be read by the purchaser. Even in the literary magazines, which are without exception of considerable importance as a subsidizing means for publishers, those books reviewed that are published by the publisher of the magazine will naturally be reviewed favorably.

Public libraries (*öffentliche Büchereien*) specialize in *Sachliteratur* (popularly written factual representations), whose purpose it is to inform the general reader, and the belles lettres. Selections are made from a monthly periodical, *Bücherei und Bildung*, which advertises annually, on the average, 3,300 books (1,900 subject literature, 900 belles lettres, and 500 juvenile).⁵⁷ Titles are chosen not only for quality but also in view of their usefulness for potential readers.⁵⁸ In 1947 the Einkaufszentrale für Öffentliche Büchereien (EKZ) was founded in Reutlingen to provide special library editions of books with printed cards as well as library supplies, display material, and furniture. *Bücherei und Bildung* is independent of the EKZ. Titles are not only ordered from the EKZ but also from the *Sortiment*. The university libraries also order between 15,000–30,000 books annually from the *Sortiment*.⁵⁹

Of particular interest to librarians as well as to the book trade is the annual Frankfurt Book Fair (Frankfurter Buchmesse). There are about 2,000 exhibits and only one-third of these are German.⁶⁰ It is a real marketplace where negotiations for translations are made, new titles are promoted, and international exchange is fostered. From a limited German fair, the Frankfurt Book Fair has achieved international recognition. The high point of the fair is the awarding of a peace prize, which is nationally televised and serves among other things the purpose of bringing the book trade into the public eye.

The main meeting of the Börsenverein des deutsche Buchhandels is held during the Frankfurt Book Fair. There are about 5,000 members.⁶¹ Twice a year representatives meet from each *Landesverband* (state association) with the number from each *Land* according to the membership

in each *Landesverband*. In addition, there are seven to fourteen members-at-large from the general membership who are selected by the *Vorstand* (executive board). Thus, at these meetings all three groups are represented. The executive board is elected for three-year terms and consists of six members—three publishers and three dealers. They meet every six to eight weeks. For the business of the organization, fourteen standing committees are appointed. The *Buchhändler Vereinigung GmbH* is their official publisher.⁶²

The *Deutsche Buchhändlerschule* (German Book Trade School) belongs to the *Börsenverein*. In 1962 it moved from Cologne to Frankfurt. Students study on the average three years and may specialize in either publishing or selling. At the end there is a comprehensive examination. Two periodicals deal with the training of *Buchhändler*, *Der Jungbuchhandel* and *Der junge Buchhandel*.

The *Börsenverein* is also represented on the *Kuratorium* (board of trustees) and on the *Beirat* (advisory board) of the *Deutsche Bibliothek*, a nonprofit publically owned foundation. Two other foundations combined in 1952 to form the *Sozialwerk des deutschen Buchhandels* to provide a health and old-age pension plan as well as financial aid to apprentices.

Scientific analysis of the book market is an interdisciplinary subject, since the book may be examined from an economic, social, political, or cultural point of view. In order that the various disciplines could coordinate their research efforts and disseminate results, the *Institute für Buchmarkt-Forschung* (Institute for Book Market Research) was established in 1965 in Hamburg.⁶³ Scientific occupation with questions concerning the book trade already led to the funding of a professorial chair for *Buchhandelsbetriebslehre* (the teaching of book trade operations) in 1925 at the *Handels-Hochschule* in Leipzig, which Dr. Gerhard Menz held until 1945. After the war, in Göttingen, Dr. Wolfgang Kayser, professor of Germanistics, brought the book trade to the attention of the academic world by a series of lectures given at various universities.⁶⁴ In Berlin, Dr. Walter Höllerer founded a department on the nature of books and publishing concerned with literary and sociological questions. The economic and sociological side of the problem was anchored by Dr. Peter Meyer-Dohm in Hamburg at the *Institut für Buchmarkt-Forschung*. To coordinate current research activities, a *Wissenschaftliche Arbeitskreis Buch* was established in 1965.⁶⁵

There is no relationship in Germany between the population of the city and the number of publishing firms. Stuttgart, for example, with a population of 638,000 has 156 firms, while Dortmund with 642,000 has only twenty-nine. According to the number of titles 45 percent of book production is in southern Germany.⁶⁶ Federalism in the book trade created many difficulties not the least of which is higher costs.

The question of mergers among publishers has received much publicity lately. The 1968 edition of *Buch und Buchhandel in Zahlen* reveals that there are 2,555 firms in West Germany and West Berlin. Of

the commercial publishers, 1,737 publishers actually produced books in 1967. A significant portion of the publishers did not publish any titles. Of these 1,737, 786 (43.3 percent) published only one or two titles; 519 (29.8 percent) published between three and ten titles—three-fourths of all the publishing firms.⁶⁷ The “big” names, who produce the majority of the books—Beck, Bertelsmann, Diesterweg, Droemer, Econ, Ernst & Sohn, S. Fischer, de Gruyter, Klett, Luchterhand, Julius Springer, Suhrkamp, etc.—form the public image of the book trade. In figures, 5.2 percent of the publishers in 1967 produced fifty or more titles and proportionally 53 percent of the total production.⁶⁸

The large publisher with a diversified output has a difficult time maintaining his “profile” (*Gesicht*) and must also pay close attention to the international book market. An alternative to the mixed large publisher (*Grossverlag*) is a trend toward the specialized small publisher. The best example is Klaus Wagenbach’s firm in Berlin—a new publisher which concentrates on young German literature from East and West. Wagenbach has created a distinct “profile,” which is reliable and dependable in the book trade as well as to the reading public. Because of this certainty of selling a good portion of what is produced, the price can be as low as possible. The business is run by him, his wife, a secretary, and an apprentice. The distribution is commissioned out.⁶⁹

In the school book market, demands for new media have virtually forced the small publishers out of the market. Likewise, in the academic textbook realm, new developments and computer technology are forcing small publishers out. The alternative seen here will perhaps be the duration of those university-oriented bookstores that also publish.

In viewing business trends of the German book trade, it should not be overlooked that there are certain factors which set certain limits in comparison to other countries: the relatively limited spread of the German language in the world; and the shortage of managers. It is foreseeable that the fixed price on books will eventually be lifted. Therefore, in viewing both a trend to *Grossverlag* and a counter-trend to specialized *Kleinverlage* (small publishers), Dürr is optimistic. It is conceivable that those publishers who fall victim to this trend will haggle about their fate, but whether it will harm literature and readers will have to be left to the *Kulturkritiker* (critics of culture). Rolf Hochhut has already published “*Zigarillos*,” a short satire on Bertelsmann and Springer.⁷⁰ It is thus clear that the image of the West German book trade is changing.

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British, French, and Australian Publications in the National Union Catalog: A Study of NPAC's Effectiveness

BARBARA SCHRADER
*Knickerbacker Junior High School
Troy, New York*
and

ELAINE ORSINI
*Mohonasen High School
Rotterdam, New York*

A study of NPAC's progress was made to determine the program's effectiveness. Working with two samples, one representing a "pre-NPAC year" (1962) and the other a "post-NPAC year" (1967), the authors concluded that significant improvements have been made in the coverage of foreign publications, the availability of centralized cataloging, and the currency with which foreign publications are entered in NUC. Although the study was restricted to Australian, British, and French publications, the conclusions drawn may be applicable to all countries involved in NPAC.

THE NATIONAL PROGRAM FOR ACQUISITIONS AND CATALOGING (NPAC) or the Shared Cataloging Program, as it is often called, was authorized by an amendment to Title II, Part C of the Higher Education Act of 1965, Public Law 89-239, which states that funds are to be transferred to the Librarian of Congress for the purpose of:

- (1) . . . insuring, so far as possible, the acquisition by the Library of Congress of all library materials currently published throughout the world of value to scholarship; and . . .
- (2) . . . providing catalog information for these materials promptly after receipt, and distributing bibliographic information by printing catalog cards and by other means, and authorizing the Library of Congress to use for exchange and other purposes such of these materials not needed for its own collections.¹

With the passage of this act, NPAC promised to become one of the most important bibliographic programs ever initiated.

¹ As quoted in Jerrold Orme, "Title II-C, a Little Revolution," *Southeastern Librarian* 16:164 (Fall 1966).

Since 1965 great expenditures of time and money have been devoted to NPAC. As is the case with so many bibliographic undertakings, however, it cannot be said with certainty how effective the program has been. Have the promises of 1965 been fulfilled? We feel that a study of NPAC's progress to date would be of value to the library community, and to this end we have formulated three hypotheses:

1. That there has been a significant increase in the coverage of foreign publications in the *National Union Catalog* since the implementation of NPAC;
2. that cataloging copy for foreign publications in the *National Union Catalog* appears on a more current basis than was the case prior to the implementation of NPAC; and
3. that the percentage of Library of Congress and Shared Cataloging copy of foreign publications, as opposed to union cataloging copy, has increased significantly since the implementation of NPAC.

To test these hypotheses, we compared the foreign coverage of NUC for a pre-NPAC year (1962) and a post-NPAC year (1967). Since we were looking for concrete statistics rather than subjective opinions, our intention was to draw a sample of 200 titles from three foreign national bibliographies for each of the two test years and then search for them in the *National Union Catalog*. Obtaining the 1962 sample was particularly difficult, however, as most libraries do not keep the monthly or weekly issues of bibliographies once the annual cumulations have been published. The selection of titles involved the systematic inspection of each of the three national bibliographies and the elimination of any title which did not meet the criteria set forth in the following section of this paper. This procedure was employed until the predetermined number of titles had been chosen.

From the weekly issues of the *British National Bibliography* for January, February, and March 1962, 100 titles were selected. Thirty titles were chosen from the November 1962 *Australian National Bibliography*, and fifty titles were chosen from the January and February weekly issues of the 1962 *Bibliographie de la France*. The total figure for this sample should have been 200. However, since only one monthly issue of the 1962 *Australian National Bibliography* was available, even after checking with the Australian Consulate-General Office in New York City and the Australian Embassy in Washington, D.C., we were forced to accept the smaller figure of 180 titles.

We then searched for these titles in the *National Union Catalog*. Each title was searched for a period of fourteen months after its publication in the foreign national bibliography.

An identical technique was employed for selecting and searching the 1967 sample. However, in this sample we were able to obtain the full 200 titles. Of this figure, 100 titles were chosen from the January and February 1967 weekly issues of the *British National Bibliography*. Fifty titles were selected from the weekly issues of the January 1967 *Bibliographie de la France*, and the remaining fifty titles were taken from the

monthly January through April issues of the 1967 *Australian National Bibliography*. As in the case of the 1962 sample, each title was searched through the fourteen monthly issues of the *National Union Catalog* which followed the title's appearance in the foreign bibliography.

Criteria for Selecting Titles

The titles comprising the samples were selected by following the criteria outlined by the Library of Congress in its blanket order statements. This involved the elimination of medical books prepared for the medical profession, agricultural books prepared for the farmer, government publications, children's books, society publications, reprints, extracts, separates, and translations. We also eliminated all editions of monographs other than first editions, and publications in subject areas such as literature and sports with which we were unfamiliar or in which we did not feel competent to judge the scholarly value. However, we did attempt to represent the fields of science, philosophy, religion, history, and the social sciences with equal emphasis throughout the sample.

The French titles were selected with the aid of the *New Cassell's French Dictionary* since our own French vocabulary was somewhat limited. Because of our desire for a quality sample, we more readily eliminated titles whose meanings were uncertain due to the translation factor. Thus, some titles were excluded from the French sample which might have been included in an English-language sample. The high percentage of French titles found in the *National Union Catalog* may have been influenced by this highly critical screening. However, since both the 1962 and the 1967 French samples were chosen in this manner, the percentage of change in coverage should not have been affected.

Search Techniques

As each title in a sample was selected, the complete bibliographic entry from the foreign national bibliography was recorded on 3x5 cards. White, yellow, and pink index cards were used for the French, British, and Australian titles, respectively. Color-coding of the 380 entries allowed for more efficiency and ease in the searching and in the compilation of the statistics.

As each title was located in the *National Union Catalog*, the date of the issue of *NUC* in which it was found was recorded on the back of the card. Also noted was the source of the descriptive cataloging data. In the case of the 1962 titles, cataloging data were supplied by two sources, either the Library of Congress or contributing American research libraries. The distinction between the two sources was made on the basis that cataloging data supplied by research libraries lacked both classification and LC card numbers.

In 1967 a third source of cataloging data enters the picture. This, of course, is the foreign national bibliography. Identification of cataloging data taken from foreign national bibliographies was facilitated by LC's inclusion of a distinct number which had previously been assigned by

the foreign bibliography. In the case of the *Australian National Bibliography*, this was referred to as a registry number (AUS67-29), while *BNB* called it a serial number (B67-26244), and the *Bibliographie de la France* used the term pressmark (F66-7582). Union cataloging was identified by the letters NUC which preceded the card number, e.g., NUC68-11776. A lack of any of these previously mentioned designations signified Library of Congress cataloging.

Findings

Of the 180 titles comprising the 1962 sample from the foreign national bibliographies, 118 (66 percent) were located in the *National Union Catalog*, while 173 titles (87 percent) of the 1967 sample were found. This indicates an increase in coverage of 21 percent from 1962 to 1967. A breakdown of these results by country is illustrated in Figure 1.

Even though it might appear that the differences between the 1962 and the 1967 figures could be the result of the annual growth of the *National Union Catalog*, we feel that each of these increases is basically due to the effect of NPAC. Even if the *National Union Catalog* had in-

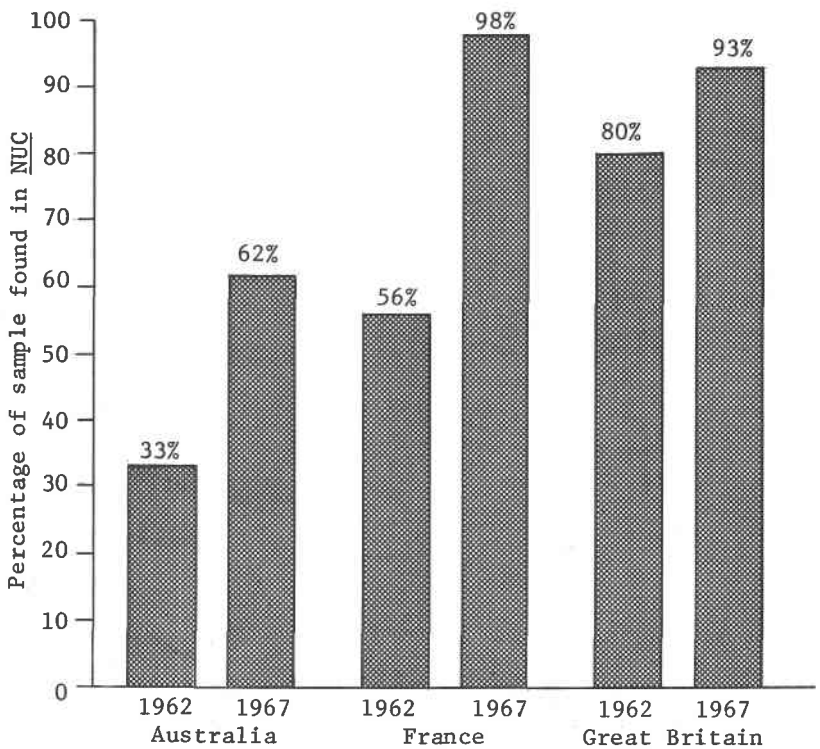


Figure 1. Coverage (by country)

creased its coverage of foreign publications each year, the increases in the foreign national bibliographies would have been great enough to equalize the growth. That is, the actual percentage of *NUC* coverage would probably not have increased to the extent that our findings indicate, without NPAC.

As common sense might have suggested, the coverage of British publications before NPAC was already quite good, and therefore an increase of 13 percent is highly commendable. On the other hand, in the case of Australia, we find a country whose 1962 coverage was very low and the increase of 29 percent is satisfactory considering that no NPAC office has been set up there. In a country such as France, where an office has been established, we have found an excellent increase of 42 percent. This increase is especially significant since it is generally conceded that the area least satisfactorily covered by the Library of Congress prior to NPAC was foreign language publications.

In the area of cataloging activity, we found that of the 118 titles located in *NUC* from the 1962 sample, 53 (45 percent) were cataloged by the Library of Congress. This left 65 (55 percent) of the titles to be cataloged by cooperating American research libraries. The figures for 1967, presented in Table 1, show a marked increase of 50 percent in centralized cataloging.

This increase in centralized cataloging is due primarily to the fact that foreign national bibliographies are currently supplying approximately 90 percent of the cataloging data, leaving LC to catalog the remaining 5 percent. On the surface it might appear that the Library of Congress is doing very little cataloging, but it is important to remember that this figure reflects only materials acquired from countries in which national bibliographies are maintained and with which Shared Cataloging arrangements have been made. The Library of Congress is also providing cataloging copy for NPAC materials acquired from Regional Acquisitions Offices, for the Farmington Plan, and for P. L. 480. Therefore, the figures represented in Figure 2 should be viewed with these facts in mind.

Marked increases in centralized cataloging of materials from all

TABLE 1
CATALOGING (TOTALS)

Year	LC Cataloging		Shared Cataloging		Union Cataloging		Centralized Cataloging	
	N	%	N	%	N	%	N	%
1962	(53)	45%			(65)	55%	(53)	45%
1967	(9)	5%	(156)	90%	(8)	5%	(165)	95%

Note: N = The number of titles cataloged.
% = The percentage of titles cataloged.

three countries clearly indicate NPAC's overwhelming success in fulfilling one of its primary goals. With the continuation of NPAC, we expect to see an even greater percentage of foreign language materials being centrally cataloged.

It is much more difficult to make definitive statements about currency due to the numerous time factors involved in the operations of NPAC. In an attempt to simplify this complex aspect of the study, we have tried to show in Tables 2 and 3, how long it took the *National Union Catalog* to pick up titles following their appearance in the foreign national bibliographies. Table 2 shows the percentage of titles found in *NUC* during each of four different time intervals, while Table 3 shows the cumulated percentages for the same intervals. Thus Table 2 shows that of the 1967 French publications 6 percent were found in the first two-month interval, another 25 percent were found in the second two-month interval, and another 40 percent were found in the third; the remaining 29 percent were not found until after six months of their appearance in the *Bibliographie de la France*. Table 3, giving these same figures cumulatively, shows that after four months a total of 31 percent

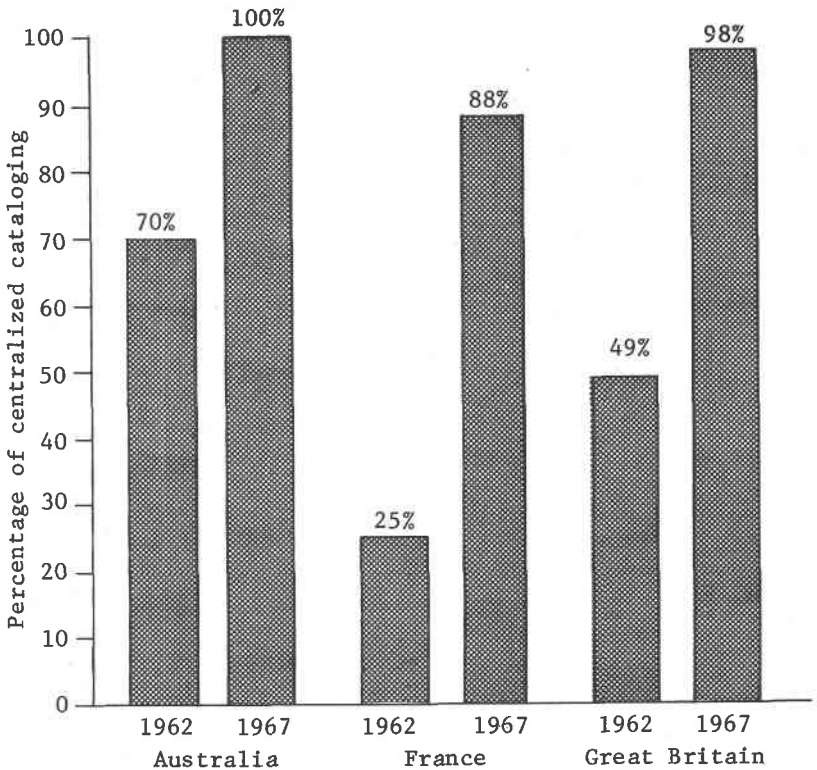


Figure 2. Cataloging (by country)

of the titles had been found in *NUG*, and that after six months a total of 71 percent had been found.

A second look at Table 2 shows that the peak period for the entry of French publications occurred during the fourth time span in 1962 and during the third time span in 1967. Although this is a smaller increase in currency than we shall see in the other two countries studied, it should be noted that this is a foreign language sample and therefore even a small increase in currency is important. As a point of interest, it may be noted that the French sample for 1967 was the only one to con-

TABLE 2

COUNTRY	Two months		Four months		Six months		Seven-Fourteen months	
	N	%	N	%	N	%	N	%
Australia								
1962	(0)	0	(0)	0	(1)	10	(9)	(90)
1967	(0)	0	(19)	(61)	(3)	9	(9)	30
France								
1962	(2)	7	(3)	10	(5)	16	(20)	(67)
1967	(3)	6	(12)	25	(20)	(40)	(14)	29
Great Britain								
1962	(1)	1	(7)	9	(8)	10	(64)	(80)
1967	(11)	12	(57)	(61)	(19)	21	(6)	6

Note: Circles indicate the periods during which the largest percentage of materials for each country was entered in the *National Union Catalog*.

TABLE 3

COUNTRY	Two months		Four months		Six months		Seven-Fourteen months	
	N	%	N	%	N	%	N	%
Australia								
1962	(0)	0	(0)	0	(1)	10	(10)	100
1967	(0)	0	(19)	61	(22)	70	(31)	100
France								
1962	(2)	7	(5)	17	(10)	33	(30)	100
1967	(3)	6	(15)	31	(35)	71	(49)	100
Great Britain								
1962	(1)	1	(8)	10	(16)	20	(80)	100
1967	(11)	12	(68)	73	(87)	94	(93)	100

Note: The 100 percent figure shown in the seven-fourteen months column of this table represents the total number of titles found, not the total number of titles searched.

tain a title which was found in the *National Union Catalog* during the same month that it appeared in the foreign national bibliography.

In the case of Australia, the greatest portion of 1962 publications also appeared in *NUC* during the seven- to fourteen-month time span. In 1967 this period occurred during the four-month interval, showing an increase in currency of three to ten months.

For Great Britain, the peak periods occurred during the seven- to fourteen-month time span in 1962, and during the four-month interval in 1967. This increase is comparable to that found in the figures for Australia.

Of the three countries considered in the study, two have shown a minimum three-month increase in currency. In all three cases the greatest percentage of materials is being picked up within six months of their entry in the foreign national bibliography. This is just one more indication of NPAC's success.

Conclusions

Our study was designed to investigate the National Program for Acquisitions and Cataloging (NPAC). We hoped to prove that it has been the prime factor behind the increase in coverage of foreign publications, the increased availability of centralized cataloging, and the increased speed with which foreign publications are entered in *NUC*. Due to the limitations of our study, it is impossible to make absolute conclusions about the total operation of NPAC. Therefore, our deductions are derived solely from our investigation of the three countries chosen. Enumerated below are the conclusions which we have reached.

- (1) In the three countries investigated, the coverage of foreign publications has increased. However, countries without Shared Cataloging Offices are still in need of further improvement;
- (2) the availability of centralized cataloging for foreign publications has increased greatly; and
- (3) the speed with which foreign publications are being entered in *NUC* has increased.

However, since our study has shown that most materials are being picked up within the two- to four-month interval following their entry in the foreign national bibliographies, it does not seem probable that LC is meeting its three-week goal for the dissemination of printed cards. In order to meet this goal, the Library of Congress would have to distribute its depository sets of cards two to three months before the date appearing on the *NUC* issues in which these cards are contained. Not to be discounted either is the fact that most libraries receive their issues of *NUC* anywhere from two to three months after the date printed on the issue. This means that by August a library may still be awaiting its June issue of *NUC*. Adding the two or three months' wait for each *NUC* issue onto the two- to four-month lag in currency, we see that it is possible for those libraries not receiving depository sets of cards or proof sheets of *NUC* to expect a four- to seven-month delay in cataloging copy. We

realize that LC's MARC Project may sometime in the future remedy this situation.

At this point in NPAC's development, it would appear that the program has made tremendous strides toward its goal of prompt worldwide acquisitions and international cooperation in cataloging. Since NPAC is a progressive program, constant evaluation is vital to its continued success. Therefore, we would recommend that future research on this program be periodically conducted on a more comprehensive level than we were able to attain. We further recommend investigation into NPAC's relationship with other acquisitions programs to eliminate needless duplication within areas of control. As a final suggestion, we feel that an evaluation of NPAC's role in providing an incentive for developing countries to better organize their book trades would be informative. We hope that these studies will lead to an affirmation of our own findings and to the continued expansion of NPAC.

Canadian Publications in the English Language: *CBI* vs *Canadiana*

JOEL LEVIS
Memorial University of Newfoundland
St. John's, Newfoundland, Canada

Cumulative Book Index (*CBI*) purports to be a listing of "all books in the English language regardless of the place of origin." This study was undertaken to determine the completeness of coverage by *CBI* of one foreign country's English-language publications compared with the coverage by that country's current national bibliography. The country chosen for study was Canada; the tool chosen for comparative purposes was *Canadiana*. The results indicated that *CBI* included only about 74 percent of Canadian English-language publications in a given period and that the appearance of a title in *CBI* was very much behind the original appearance in *Canadiana*. There was also an implication that *CBI* could improve its Canadian coverage considerably with a little extra effort and that there were no sources of information available to *CBI* that were unavailable to *Canadiana*.

THE AIM OF THE *CUMULATIVE BOOK INDEX* is to "list all books in the English language regardless of the place of origin."¹ Its subtitle proclaims it to be a "world list of books in the English language." If *CBI* did in fact list all English-language books, wherever published, what need then would libraries have of *The Bookseller*, of the *British National Bibliography*, of the *Australian National Bibliography*, or of *Canadiana*? Considering all of the difficulties involved, can *CBI* really hope to approximate the coverage of English-language materials in the various foreign national bibliographies? To answer these questions, at least in small part, is the purpose of this study. Specifically, how does *CBI* compare with one foreign national bibliography, *Canadiana*, in its coverage of English-language books published in Canada?

Canadiana is the basis for current national bibliography in Canada.² Produced by the National Library in Ottawa, it attempts to include all publications published in Canada in both the English and French languages as well as materials published outside of Canada in any language written by Canadians, about Canada, or merely of interest to Canadians. It is divided into six sections to include pamphlet and regular trade materials, privately published items, publications of societies and institutions, musical scores and sheet music, newspapers, periodicals (when first published), films, microfilms, and publications of the federal and provincial governments of Canada. Inclusions are based on the Book Deposit Regulations of the National Library Act (1953), but materials which are either presented to the Library as gifts or are purchased

through the Library's Order Section are included as well. Such a task involves a considerable amount of searching through regular trade publications, scholarly journals, and many other sources which could indicate pertinent titles. With such procedures in effect, it does not seem likely that *Canadiana* will miss too many titles within its scope.

For their part, the editors of *CBI* depend upon information obtained from the releases of various publishers, national and trade bibliographies, and LC proof sheets. However, *CBI* omits certain classes of material which *Canadiana* includes. For example, *CBI* omits all government publications, sheet music and scores, religious tracts, maps, cheap or paperbound editions, and materials which the editors regard as being ephemeral or of purely local interest.³ Thus, it was necessary to delete a large quantity of comparable entries from *Canadiana* before a sample could be drawn and the study could begin.

Mechanics of the Study

The study was based upon titles included in the January, February, and March 1967 issues of *Canadiana* which were graciously provided through the office of the editor and the corresponding issues of *CBI* which were provided in an equally gracious manner by the editor and the H. W. Wilson Company. To equalize the classes of inclusion, it was necessary first to search the indicated issues of *Canadiana* and to eliminate those materials which *CBI* by concession did not include. For inclusion in the sample, it was necessary for a title to satisfy the following criteria. Each title chosen had to be for sale and be written solely in English. If less than forty-nine pages, it was regarded as a pamphlet and was excluded. Theses or government documents were eliminated as were titles which appeared to be ephemeral or of purely local interest. Finally, each title had to have been published solely in Canada. Unless the annotation indicated otherwise, the imprint location was taken as final. The resulting sample was then searched thoroughly in the basic January, February, and March 1967 issues of *CBI*. Titles not located were then searched on a monthly basis up to and including the August–December 1967 cumulative issue. Remaining titles not located were searched through the cumulative issues for the years 1965 and 1966. At this point any titles still not located were re-searched throughout the entire time period to ensure that they had not been missed the first time in a weary moment.

The information received from the search was recorded in two files. Full bibliographic data were recorded on a standard 3x5 card for each title while another file was maintained composed of marginal punched cards coded for the following data: title located in *CBI*, date title appeared in *CBI*, date title appeared in *Canadiana*, and the first two digits of the *Canadiana*-assigned class number. It was hoped that the class number might enable some conclusions to be made regarding certain subjects that were possibly being neglected, but the sample proved too small for this to be of any use. In addition, it was also recorded whether

or not the publisher was included in the 1961-62 list of publishers found in *CBI*. This was the most recent listing available at the time of the study; it was brought up to date by an examination of changes and additions found in subsequent issues. The master 3x5 card file included, in addition to the aforementioned full bibliographic information, the class number of each title, the date of appearance in *CBI*, the date of appearance in *Canadiana*, and an identifying serial number. This number and the vestigial class number of each title were recorded on the corresponding marginal punched card.

Comprehensiveness

The total number of titles in the sample was 209, of which 100 (48 percent) were drawn from the January 1967 issue of *Canadiana*; fifty (23 percent) from the February issue; and fifty-nine (29 percent) from the March issue (see Table 1). Of the 209 titles, 154 (74 percent) were eventually located in *CBI*, while fifty-five (26 percent) were not located in *CBI* at all. Expressed as a ratio, for every four titles from *Canadiana* searched in *CBI*, three were located. These figures can be broken down even further to show that 143 (68.4 percent) of the titles located were the products of Canadian publishers listed in the 1961-1962 cumulative volume of *CBI*, while eleven (5.3 percent) of the titles located were not the products of listed publishers. For each of these eleven titles, the full address of the publisher was included in the main entry. Of the fifty-five titles (26 percent) not located, twenty-six (12.4 percent) were produced by publishers not included in *CBI*'s list of publishers and tended to be the products of small presses, local firms, or individuals. However, twenty-nine (13.9 percent) of the titles from *Canadiana* not located in *CBI* did have their publishers included in *CBI*'s list. Had *CBI* included this 13.9 percent of the titles it could have increased the percentage of inclusion from 74 percent to 88 percent or from a ratio of 3:1 to 7:1.

Currency

The currency of *CBI* can be demonstrated graphically through an examination of Table 2. Of the titles listed in the January issue of *Canadiana*, forty titles or a majority of titles located from this issue were subsequently located in the May 1967 issue of *CBI* but only after a de-

TABLE 1
SUMMARY OF STATISTICS

CANADIANA	Number of Titles	Number of Titles Located in CBI	Number of Titles NOT Located in CBI
January	100	76	24
February	50	34	16
March	59	44	15
Total	209	154 (74%)	45 (26%)

TABLE 2
DISTRIBUTION OF TITLES IN SAMPLE LOCATED IN CBI

	1965		1966		1967										
	Jan.- July	Aug.- Dec.	Jan.- July	Aug.- Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Sept.	Oct.	Nov.	Dec.
CANADIANA															
January 1967 (70 titles)	0	0	4	8	9	0	3	2	40	0	4	2	2	2	0
February 1967 (34 titles)	0	0	0	2	3	2	0	0	0	0	20	3	4	0	0
March 1967 (44 titles)	0	0	1	2	3	2	0	0	0	0	33	3	0	0	0
Total Titles Located (154)	0	0	5	12	15	4	3	2	40	0	57	8	6	2	0
Percentage of Titles Located	0	0	3	8	10	3	1	1	26	0	37	6	4	1	0
Groupings of Percentages	0%			11%				78%						11%	

lay of five months from their appearance in *Canadiana*. Titles in the February or March *Canadiana* were not located in appreciable quantity in *CBI* until the January–July cumulative issue. The percentage of titles involved amounted to 37 percent of the titles which were eventually located. What is perhaps more significant here is the sporadic distribution of titles located throughout the six-month period of *CBI*'s publications and the sudden reporting of a large number of titles. This would appear to indicate that for the library's purpose there is a substantial time lag between the appearance of a given title in *Canadiana* and its subsequent appearance in *CBI*. Similarly, it would appear that *CBI* is concerned with the listing of Canadian publications on a long-term cumulative basis rather than a current one.

CBI's Sources versus Canadiana's Sources

For purposes of determining whether or not *CBI* had access to Canadian titles which *Canadiana* did not, a very small sample of definitely Canadian titles was obtained from the January 1967 issue of *CBI*. This sample of fourteen titles was then searched in the issues of *Canadiana* from its appearance in January 1951 to March 1968. All titles were located. Admittedly, this is a very small sample. However, it does suggest that *CBI* probably does not have access to sources unavailable to *Canadiana*.

Conclusions

1. A library requiring a current complete listing of Canadian titles would be wise not to depend upon *CBI* alone. As Table 1 shows, only 74 percent of Canadian titles (with restrictions taken into consideration) are eventually listed.
2. Similarly, as is shown in Table 2, coverage of Canadian titles is many months more current in *Canadiana* than in *CBI*.
3. If *CBI* were to give complete coverage to titles within scope from just those publishers which it gives in its master lists, coverage of Canadian titles could be expected to increase about 14 percent.
4. It does not appear that *CBI* has access to sources unavailable to *Canadiana*.

The question that these conclusions suggest is: What is the nature of *CBI*'s coverage for English-language titles of other foreign countries? One would guess that, because of geographical proximity and the close ties between the American and Canadian publishing industries, the Canadian coverage would be the best of all, surpassing that of Australia, England, or Scandinavia. Esdaille, however, many years ago warned in his seven commandments to bibliographers: "Never guess; you are sure to be found out." It is on a point such as this that a bibliographer would be pleased to be found out.

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2. Constance M. Winchell, *Guide to Reference Books* (8th ed.; Chicago, 1967), p.37.
3. *Cumulative Book Index*, v.70 (March 1967).

The Classified Catalogue, LU Style

C.-C. WONG

and

JOAN MOUNT

*Cataloguers, Laurentian University
Sudbury, Ontario, Canada*

The Laurentian University Library has evolved a bilingual classified catalogue consisting of a public shelflist supplement by a French/English subject index. Indexing is done when processing the first book on a given topic, covers both primary and secondary subjects, and is done in both languages immediately. Where applicable the shelflist is amplified by secondary subject cards which stand behind the run of primary subject cards within the same classification slot. Thus there emerges an effective tool for locating all materials pertaining to a given topic in either or both of two languages.

THE CLASSIFIED CATALOGUE at Laurentian University* has come of age. Now into its tenth year it is no longer a mere experiment. Perhaps the time is ripe to offer some comment on its structure and effectiveness.

Laurentian University is a bilingual institution. When the classified catalog was introduced in 1961, it was set up primarily to meet the bilingual demands of our situation. To this end, it provides a subject approach in both languages to every book in our collection, yet without being unmanageably bulky. It was also recognized to have other merits:

- it provides the catalogue user with the panoramic approach afforded the shelf browser;
- it affords an easy means of compiling bibliographies;
- it permits easy altering of subject terminology should the need arise; and
- it lends itself to computer applications since the classification numbers will be easier to code than subject headings.

Structure

Simple but unique is this feature of our public catalogue. Unique because it is a public shelflist supplemented by a bilingual index. Simple because we are all familiar with the use of an alphabetical subject index. This one appears in compact attractive card format.

* Laurentian University is located in Sudbury, Ontario, and serves the bilingual student population of Northern Ontario.

This card index, arranged alphabetically, consists of English and French subject headings interfiled, plus place names and personal names (biographees). Each subject heading is inserted when processing the first book on a given topic, may relate to the book either as a primary or secondary subject, and is rendered into the second language immediately.

On one side of the index card appears the subject heading either alone or with relevant subdivisions as represented in the collection. On the other side appears the corresponding LC classification number(s) or span of numbers. Geographical subdivisions are not mixed with other subdivisions but listed alphabetically on a separate card filed behind other cards with the same heading.

Examples:

Index card showing subject heading with relevant LC classification number:

Cellulose	QD321
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Index card showing subject heading with span of classification numbers:

Cryptograms	QK504-635
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Index card showing subject heading with subdivisions and relevant classification numbers:

Hospitals	RA960-996
Accounting	HF5686H7
Bibliography	Z6675H75
Staff	RA972

For the English sector, *LC Subject Headings*, 7th ed., and its supplements provide our authority. For the French, we use the 6th edition of the Université Laval* Bibliothèque's *Répertoire de Vedettes-Matière*. The problem of gaps will be mentioned later.

The shelflist, governed by classification numbers, furnishes both a primary and secondary subject approach. When a topic figuring as the primary subject is covered by a number of titles, the shelflist cards, of course, stand in the same order as the books on the shelf. The same subject, when secondary, is indicated by the relevant classification number typed in red at the top of a unit card for each book concerned. This number then serves as the filing device, and all such cards are filed alphabetically behind the run of primary subject cards bearing the same classification number.

The complete run of cards bearing the call number B 819 as primary designation stands ahead of the run of cards where B 819 is an appended designation.

* Laval University, Quebec City, Quebec, Canada.

Examples:

Main subject card:

B	Williams, John Rodman.
819	Contemporary existentialism and Christian
W254	faith.

1. Existentialism.

Secondary subject card:

	B 819 F
N	Fallico, Arturo B.
72	Art and existentialism.
F3	

1. Art—Philosophy. 2. Existentialism.

As an aid to the user, both the index and the shelflist contain alphabetical guide cards. In addition, verbal headings are used throughout the shelflist; e.g., France—Civilization—at the head of the run DC 33-33.9.

Behind the scenes we maintain parallel master files. The public shelflist is duplicated but simplified by tracing the secondary subject numbers on the verso of the main shelflist cards. The index is duplicated but amplified by tracing corresponding headings in both languages on the same cards, one in each language.

Examples of master file index cards:

BIRDS QL671-699

(Oiseaux)

OISEAUX QL671-699

(Birds)

Weaknesses and Problems

The classified catalogue manifests certain drawbacks. Foremost is the fact that if the index is at all backlogged or in error the user will have *no* subject access to an area which may well be represented in the collection. In other words, to be functional the index must be absolutely *current* and absolutely *correct*. Even one missing card might mean a dead end to the student desiring to explore that topic. Unfortunately, we do not have an unblemished record in this respect.

Second, the classified catalogue comprises two sections, comes in two languages, and contains two grades of cards in the shelflist. Thus it may appear to the user more complex than the conventional dictionary or divided catalogue. We try to counteract this impression at the time of our freshman orientation program. There is also a librarian on hand to answer user inquiries. Students would appear to have little difficulty "catching on," and we have had few complaints.

As with the more conventional subject approach there is always the risk that the user will fail to think of the appropriate subject heading. However, because the index consolidates all of the subject headings used, a resourceful user generally thumbs through and often arrives at the desired entry. Obviously the odds of so doing exceed those afforded by the more conventional dictionary or divided catalogue since one need consult fewer items.

There is also the possibility that since this is a two-part tool, the user will short-circuit its effectiveness by checking only one part. However, the very common practice of using only the subject index then going directly to the shelf might in some instances be a valuable time-saver. Admittedly, most students are interested only in what is actually on the shelf and not in what is potentially there but currently out in circulation.

The Cataloguing Department, for its part, encounters certain headaches. First there is the quite considerable time requirement to classify all secondary subjects. One helpful tool in this task is the Boston University *Index to the Classed Catalog*, 2d ed., but it is now six years old. Requiring more effort to use, but often our sole recourse for newer subjects, are the LC subject catalogues and the LC additions and changes. Needless to say, experienced bilingual cataloguers, familiar with the whole gamut of LC schedules, are needed to cope with what is indisputably our biggest professional challenge.

As mentioned at the outset, the nature of our university community necessitates the maintenance of a bilingual subject index. Here we face the difficulty of arriving at equivalents in the alternate language. Because where possible we use the NUC catalogues for copy, we are generally moving from English headings to French. Scientific and technical terms present the greatest problem. When Laval does not provide us with satisfactory or complete terminology, the practice is to consult other relevant sources such as the *Vedettes-Matière* of the Bibliothèque du Parlement,* *Index Alphabétique du Catalogue Systématique* de la Bibliothèque Nationale du Québec, specialized encyclopedias and dictionaries, and, of course, the book itself. We can exercise considerable inventiveness knowing that terminology may be easily altered should a better heading be found.

Backlogging remains the Achilles heel of this tool, and presents a problem to the cataloguer as well as to the catalogue user. If the book

* Library of Parliament, Ottawa, Ontario, Canada.

in question has gone to the shelf and one classifies secondary subjects from the cards alone, the risk of inaccuracy is considerable. If the book is recalled, this is time consuming, and indeed, the book may well be out in circulation. It follows then that we have now adopted a policy of assigning secondary subject numbers while we still have the book in hand.

Strengths

Our experience with the classified catalogue has been on the whole positive. First and foremost, it remains a highly successful library solution to the bilingual requirement of our university. "See references" are made independently in either language to correspond to the pattern prescribed in the authority list and/or in accord with local usage. The term not used appears in small print. The term used appears in large print with the appropriate call number(s) indicated. "See also" references are not considered worth the effort. Alternate or affiliate terms refer directly to the appropriate classification number.

Example: "See references"

Indeterminate analysis
S. DIOPHANTINE ANALYSIS QA242

DIOPHANTINE ANALYSIS QA242
x. Indeterminate analysis

Second, the index informs the user of the subject pattern which LC employs and, through the delineation of subdivisions under main headings, directs the users to the desired level of specificity in the shelflist.

The shelflist acquaints the user with a wide beam of related materials. Since it is structured according to the LC classification scheme it allows one to see a continuum of allied subject areas as well as the continuum of particularization within one area. Thus it may serve as a device for focusing the user's frame of reference.

At the same time the shelflist allows the user to scan all the titles within his area of interest, thus preparing him to recognize gaps in the shelf collection when he later consults the stacks. By the same token this panoramic approach is an aid to those concerned with collection building. It allows one to assess the relative strength within a sector or among different sectors of the collection. It is also very helpful in compiling bibliographies.

In brief, the Laurentian classified catalogue has proved its merits.

An Inquiry into Library of Congress Cataloging Delays

GEORGE B. HELLEN, JR.
Wake County Public Libraries
Raleigh, North Carolina

The North Carolina State Library Processing Center depends on Library of Congress proof slips for cataloging the majority of titles it handles. Delays in the arrival of a significant number of proof slips prompted this study. A list of seventy-nine titles, including a discussion of the problem, was sent to the Assistant Director for Cataloging at the Library of Congress. Included in his response was the status of each title. The results of the research done by his staff on these titles showed the existence of two important problems which were somewhat beyond the control of the Library of Congress. As staff vacancies occur, they are being "frozen" rather than refilled because of budgetary problems. An alarming backlog exists in the Library Branch of the Government Printing Office. It is concluded that some explanation should be given of the priority system of cataloging employed by the Library of Congress. In general, the Library is performing its cataloging services well, but steps must be taken to alleviate the printing backlog.

THERE ARE TWO WAYS of handling book acquisition for members of a processing center. The simple way is to send a list of books which the center proposes to process to each member. The center will have prepared cataloging in advance for these books. As soon as they are received from a jobber or publisher, they can be processed and delivered to the member libraries. The complex way to handle acquisitions is to invite the member libraries to order any title whenever they wish. This second alternative is of much more value to the participating libraries since needs will vary among communities. However, it presents an array of problems not found in the first method. The physical processing of sixty different titles is a great deal more time consuming and expensive than processing sixty copies of the same title. What is even more time consuming and expensive is the *cataloging* of sixty different titles as opposed to the cataloging of one title with sixty copies. In spite of these difficulties, the North Carolina State Library Processing Center uses this second method of book acquisition for its members.

In April 1959 a conference of North Carolina public libraries inter-

ested in establishing a processing center was held at the North Carolina State Library. The result of the conference was a request that the State Library take steps to establish a processing center under its direction. It was to be financed initially with funds from the Library Services Act (P.L. 84-597) with the idea that it would become self-supporting. A director was employed in January 1960, and the first books were distributed in May 1960. This center has grown in membership from thirty-four libraries in 1960, to sixty libraries at the present time. In fiscal year 1960-61 approximately 63,000 books were processed. This has increased to 132,000 books in 1968-69. The center is charging a processing fee of \$1.00 per book, while its costs are a little less than \$.90 per book. Services include: ordering; provision of catalog and shelf cards with appropriate headings, book cards, and pockets; plastic jackets and spine labels applied to the books; shipment to members; and billing. The cataloging is customized on request to suit the needs of the members. Since the first year the center has operated without subsidy on the funds received from the processing fee. Library Services Act funds were distributed to the member libraries to finance their support of the Processing Center until the current fiscal year. Continued support with local funds reveals the essential nature of this service.¹

Members may at any time order any title considered a "book" as opposed to films, recordings, and other "nonbook" materials. A bibliographic source is requested by the center for the purpose of verifying titles among other things. About 90 percent of the titles are precataloged so that when they arrive, processing is immediate. These titles never remain in the center longer than one week (five days at the most) after they are received. Precataloging is done by searching the book order first in the catalog card bank which contains hundreds of sets of catalog cards overprinted in anticipation of future orders, then in a file containing card copy for every title ever cataloged by the center, and finally in the Library of Congress proof slip and "New Sets" files.

If the cataloging is not found, a copy of the order known as the "yellow slip" is pulled and further steps are taken to complete the cataloging. If the proof slip or "New Sets" card has arrived, it will have been filed with the yellow slip. If there is no Library of Congress catalog copy found here and the title is old enough that it can be found in the *National Union Catalog*, copy is photographed, edited, and given to a typist for unit card preparation. If a bibliographic source such as *Booklist*, *American Book Publishing Record*, or any of the *Standard Catalogs* is given, copy is photographed from these. This takes care of all but the newest titles.

New titles are searched in current issues of the *American Book Publishing Record* and the proof slip file. As a result of the study conducted for this paper the search has been extended to include the latest issues of the *National Union Catalog* and *Booklist*. It was discovered that a significant number of entries were appearing in those two sources for which the center did not have proof slips. It is unknown whether they

are merely being inadvertently discarded or simply not received at all. If catalog copy is not available, they are stored with other uncataloged books. The books are retained in the center until Library of Congress proof slips are received or until a decision is made to do original cataloging. Original cataloging has been done for five reasons: (1) the title is fiction; (2) the title is very popular, rapidly accumulating nonfiction, hopefully presenting no classification or entry problems; (3) there is a great demand for the book occasioned by seasonal interests, e.g., Christmas books; (4) it is near the end of the fiscal year when it is desirable for members to exhaust their book funds; and (5) the work flow in the center slows to the point that idleness of the staff becomes a problem. A sixth reason was added as a result of the present study. If a title is still here three months after the ordering date, it is cataloged, processed, and sent on to the member library. Since the fact of delays has been officially established (as will be shown later in this discussion) it was felt that it would be in the best interests of the member libraries and the Processing Center to proceed on its own.

It is the policy of the center to adhere closely to Library of Congress cataloging for reasons of general consistency. Classification follows strictly the latest abridged edition of Dewey with one or two exceptions, e.g., the standard subdivision -09 is retained to denote criticism of literature. There are very few general exceptions, however. The use of the Dewey number assigned by the Library of Congress staff entails certain problems because these numbers are not always in harmony with those established by local libraries. The members of the center understand this and have accepted it. An example is the changing of the classification of Theodore H. White's *The Making of the President, 1960* from 973.921 to 329.0230922 for his *The Making of the President, 1968*. If this latest publication had been originally cataloged before receiving the proof slip, a mistake in classification would have been made. A mistake was actually made with Mary Barelli Gallagher's *My Life with Jacqueline Kennedy*. The circumstances surrounding the publication of this book received national news coverage before the book was released. When the first group of copies was received at the center, it was felt that the title should be cataloged and shipped immediately to fill reserve requests that were probably accumulating in the member libraries. The subject heading problem was immediately apparent, but the center took a chance on the entry remaining under Kennedy instead of being changed to Onassis—and lost. About thirty copies were sent out with the wrong cataloging information. A question about the effectiveness of centralized processing itself could be raised in case any of the receiving libraries should want to add copies of this book to a branch and find a different subject entry on the cards requested for the branch library. This is a case in point to demonstrate the reason for reluctance on the center's part to do extensive original cataloging and for its preference for using the Library of Congress proof slips. There is also the time element (which is very expensive) involved in taking professional librarians away from su-

pervisory and administrative duties to do cataloging when it will be provided by the Library of Congress.

Correspondence with the Nassau Library System Processing Center of Garden City, New York, indicates that delays in receiving proof slips create a common problem for processing centers. A sample of twenty-nine of the titles being studied for proof slip delays was sent to this center. Nassau reported that it was necessary to do original cataloging for sixteen titles and that seven were still being held. The remaining six had not been ordered through the Nassau Center.² In North Carolina, the Processing Center has found these delays to be somewhat frightening because of what *could* happen. It has never become critical, but a shortage of staff or any number of other difficulties could create a crisis situation.

A list of eighty-eight titles which were in the center's inventory of uncataloged books was compiled around the middle of October 1969. They had been reviewed and/or ordered from three to nine months prior to the compilation. An attempt was made to use titles selected from review sources which review some time after publication. There are some exceptions to this. A weakness in the information supplied here is that the actual date of the arrival of the book in the center was not available. The review date and the ordering date were thus supplied in lieu of this. Actual publication date is not known. Only about 25 percent of the books ordered are "back-ordered" after publication, so that it can be assumed that most of these were in the center two or three weeks after being ordered.

A search showed that indeed there were no proof slips for them and that they actually had not been cataloged by the center. In other words, no error had been made in placing them with the other uncataloged books. A search in the *National Union Catalog* turned up entries for nine of these titles. It is unknown whether proof slips were ever received for them, but none was found. These titles were eliminated from the study.

In the appendix is an annotated list of seventy-nine titles for which apparently there has been a delay in cataloging by the Library of Congress. The proof slips for some of them have arrived and have been noted in the entry on the list. The delay remains obvious, however. It would be very helpful for large cataloging operations, and especially processing centers depending financially on delivery of processed books, to know reasons for delays or to have some information about those policies that control delays. It was also hoped that by calling this problem to the attention of the Library of Congress staffs some solution might be found. The list was sent to Mr. C. Sumner Spalding, Assistant Director for Cataloging, at the Library of Congress on December 3, 1969, with the request that he supply reasons for the delays. He responded on January 16, 1970, with annotations on all but eleven titles which were never received by the Library of Congress.

The annotated list carries the Library of Congress statement of the status of each entry. First is the date of preliminary cataloging which is

normally within three days of receipt of the book. Second is shown the status of the book. If a call number appears and the record has not been printed, the title should be at the printing stage. The letters PC (printed card exists) and NPC (no printed card exists), following information about receipt of the book, indicate the status of the title at the printing stage. If the only notation is NPC, the Library of Congress had not received the title at the time of annotating. If SL appears, it is backlogged in shelflisting. If SC appears, it is backlogged in subject cataloging. The associated date means: (1) completion of shelflisting, if there is a call number; or (2) receipt for action in the other cases. Receipts for cataloging are divided into seven priorities as indicated by P.³

A study of the statements made by the Library of Congress will show that the usual problems experienced in cataloging accounted for some of the delays. It should be remembered, however, that the list does not reflect the literally hundreds of titles for which the Processing Center did receive proof slips over the period of time represented. It would be natural to suspect at the outset of any such study of Library of Congress cataloging delays that many would be caused primarily by cataloging problems. Also, one might suspect that delays could be categorized by subject, fiction or nonfiction, or type of presentation.

The two main obstacles to a smoother flow of proof slip receipts have, however, nothing to do with the cataloging process. There is actually at the present time a "freeze" in filling vacancies on the cataloging staff of the Library of Congress that has resulted from the delays in some of the appropriations, uncertainties in other appropriations, and miscellaneous fiscal obstacles.* The shortage of staff has had severe effects on production.⁴ The other obstacle is very serious and must become the concern of every librarian in the country. Mr. Spalding writes, "I have learned that the on hand figure at the Library Branch of the Government Printing Office is now 30,000 titles. This figure, however, includes printed cross references and entries for photo-offset (e.g., Far Eastern and South Asian titles) as well as regular letterpress catalog entries."⁵ It will be noted that 18 percent of the titles on the list are backlogged at the printing stage.

Another problem brought sharply into focus is the fact that 14 percent of the titles on the list were never received by the Library of Congress. Steps to determine the reasons for a gap this large were taken as a result of this inquiry.⁶ On February 12, 1970, Edmond L. Applebaum, Assistant Director for Acquisitions and Overseas Operations, wrote:

This is in further reply to your letter of December 1969 and Mr. C. Sumner Spalding's letter of January 16, 1970. We have now investigated the eleven titles on "the" list which had not been received by LC.

The Library of Congress had pre-assigned LC card numbers to the publishers before publication of eight of the titles, and consequently expected to receive

* Editor's note: The Library of Congress informs us that this situation has now been rectified.

a gift copy of each for cataloging purposes under the All-the-Books program. The publishers did not supply copies, however, and we have now requested these titles and propose to catalog them immediately upon receipt. We maintain a regular follow-up program to assure the receipt of books for which LC card numbers have been pre-assigned, but budget and manpower shortages force this to be less frequent than we would wish.

A later search showed that one of the remaining titles—Chrisman, Harry E. *Fifty Years on the Owl Hoot Trail*—was received through copyright deposit on January 15, 1970, and is now being cataloged. A loan copy of another title—Fisher, Todd. *Our Overcrowded World*—was received January 27, 1970, and is being cataloged. LC's copy of this title is being claimed through the Compliance Section of the Copyright Office. The Library has no record yet of the remaining title—Schuyler, Philip [pa]. *Good Men Die*. New York, Twin Circle Publishing Company. 1969.—and this will be ordered and cataloged.

Ordinarily for the acquisition of American publications the Library depends heavily upon the receipt of gift copies from publishers in return for pre-assigned LC card numbers and the deposit of copyright copies.⁷

Several conclusions can be drawn: considering the volume of Library of Congress production, it is doing an excellent job of staying abreast of the flow; eagerness for self-study and improvement on the part of the Library of Congress is shown by the in-depth response to this inquiry; and a better understanding of the priority system employed by the Library of Congress is needed by cataloging operations all over the country. There was very little information in the response to the inquiry that could lead to a better understanding in that context. Spalding states:

We divide our receipts for cataloging into seven priorities and the lowest priority of any of these books meaning those on the annotated list is priority 4 (i.e., P4). . . . the fact that not all American titles in priority 4 get through the process without becoming backlogged is a matter of great concern to us as it must be to all who use our services. It is possible this situation will improve somewhat in the near future. We have better controls over our production line than we have had before and to the extent that we can fill a few vacancies we know what to do to get the maximum useful result. I am personally working on the kind of problem you are concerned with, with the full backing of the Library administration, and I assure you none of us is going to be content until at least our priority 4 materials get fully processed. (Nor will we be content then, either!)⁸

It would probably be of great help to know the criteria used to cast individual titles into certain priorities so that on the local level a decision could be made on whether to go ahead with original cataloging or to hold the title for a proof slip, assuming that staffing and printing problems are solved.

Another conclusion that is obvious is that something must be done about the printing delays. A further study could examine the possibilities of using the records contained on the MARC tapes to do the printing at various strategically located places around the country.

The fast and thorough response made to this inquiry suggests that

the kind of support for the national library which this study intends is not only welcomed by the administration of the Library of Congress, but is considered essential to its vitality.

ANNOTATED LIST

- Aaberg, Jean. *Classics in the Kitchen*. Los Angeles: Ward Ritchie Press, 1969.
Reviewed: *Publishers' Weekly* 2-10-69; Ordered: 2-20-69; LC 69-18262; Date of arrival of proof slip:
LC Statement: 21 May 1969/ SL 2 June 1969/ P4/ NPC
- Acheson, Dean. *Present at the Creation*. New York: W. W. Norton & Company, Inc., 1969.
Reviewed: *Publishers' Weekly* 6-2-69; Ordered: 7-9-69; LC 69-14692; Date of arrival of proof slip: 10-30-69.
LC Statement: 5 September 1969/ SL E744.A2174 22 September 1969/ P2/ PC
- Archer, Jules. *The Extremists*. New York: Hawthorne Books, Inc., 1969.
Reviewed: *Book Buyer's Guide* 5-69; Ordered: 5-10-69; LC 69-10918; Date of arrival of proof slip:
LC Statement: 9 June 1969/ SL 17 July 1969/ P4/ NPC
- Ben-Hanan, Eli. *Our Man in Damascus*. New York: Crown Publishers, Inc., 1969.
Reviewed: *Library Journal* 2-1-69; Ordered: 3-3-69; LC 76-75078; Date of arrival of proof slip:
LC Statement: 27 October/ SL DS126.5B45 1969, 20 November 1969/ P2/ NPC
- Bialer, Seweryn. *Stalin and His Generals*. New York: Pegasus, 1969.
Reviewed: *New York Times* 4-27-69; Ordered: 8-1-69; LC 67-25506; Date of arrival of proof slip: 10-24-69
LC Statement: 12 September 1969/ D764.B47/ SL 30 October 1969/ P4/ PC
- Bloch, Herman D. *The Circle of Discrimination*. New York: New York University Press, 1969.
Reviewed: *Library Journal* 5-1-69; Ordered: 8-7-69; LC 69-18277; Date of arrival of proof slip:
LC Statement: 11 September 1969/ 7 October 1969 BLC/ SC 7 October 1969/ P4/ NPC
- Bobinski, George S. *Carnegie Libraries*. Chicago: American Library Association, 1969.
Reviewed: *North Carolina State Library News Letter* 5-69; Ordered: 8-7-69; LC 68-54216; Date of arrival of proof slip: 11-5-69
LC Statement: 8 May 1969/ SL Z731.B67 8 September 1969/ P4/ PC
- Burke, Howard R. *The Non-Existence of God*. New York: Herder & Herder, 1969.
Reviewed: *Library Journal* 6-1-69; Ordered: 5-22-69; LC 77-80052; Date of arrival of proof slip:
LC Statement: NPC
- Cameron, Eleanor. *The Green and Burning Tree*. Boston: Little, Brown & Company, 1969.
Reviewed: *Publishers' Weekly* 3-17-69; Ordered: 9-18-69; LC 69-11780; Date of arrival of proof slip: 11-5-69
LC Statement: 2 June 1969/ PN1009.A1C3/ SL 18 September 1969/ P4/ PC

Cantor, Lon. *How to Select and Install Antennas*. New York: Hayden Book Company, 1969.

Reviewed: *Library Journal* 6-1-69; Ordered: 6-20-69; LC 69-15457; Date of arrival of proof slip:

LC Statement: 24 March 1969/ DC JAV 25 March 1969/ P4/ NPC (Note: Mss card was missing and duplicate had to be made but main problem was problem with author's name. Attempts to contact author failed. Cataloger finally decided to work on book until problem resolved. Book sent to Subject 9 January 1970.)

Castedo, Leopoldo. *A History of Latin American Art and Architecture*. New York: Frederick A. Praeger, Inc., 1969.

Reviewed: *Publishers' Weekly* 7-21-69; Ordered: 7-28-69; LC 69-13421; Date of arrival of proof slip:

LC Statement: 11 September 1969/ DC 12 September 1969/ P2/ NPC (Note: Process file still charged to Descriptive but Cataloger cleared all her books before Thanksgiving vacation so book sent to Subject sometime before that but date is unknown.)

Chauncey, Henry, ed. *Soviet Preschool Education*. New York: Holt, Rinehart & Winston, 1969.

Reviewed: *Book Buyer's Guide* 7-69; Ordered: 7-15-69; LC 69-18622; Date of arrival of proof slip:

LC Statement: 20 August 1969/ DC 21 August 1969/ SC 21 August 1969/ P2/ NPC

Chrisman, Harry E. *Fifty Years on the Owl Hoot Trail*. Denver: Sage Books, 1969.

Reviewed: *Library Journal* 5-1-69; Ordered: 6-6-69; LC 73-75735; Date of arrival of proof slip:

LC Statement: NPC

Clemens, Walter C. *The Arms Race and Sino-Soviet Relations*. Stanford: Hoover Institution on War, Revolution and Peace, Stanford University, 1968.

Reviewed: *Choice* 4-69; Ordered: 5-9-69; LC 68-21253; Date of arrival of proof slip:

LC Statement: 8 July 1969/ SL 8 September 1969/ P4/ NPC

Cobb, M. C. *Get That Job*. New York: Cowles Book Company, 1969.

Reviewed: None given; Ordered: 5-30-69; LC 69-20000; Date of arrival of proof slip: 10-9-69

LC Statement: 14 July 1969/ HF 5383. C2/ SL 11 September 1969/ P2/ PC

Cook, Elizabeth. *The Ordinary and the Fabulous*. London: Cambridge University Press, 1969.

Reviewed: None given; Ordered: 6-2-69; LC 69-11147; Date of arrival of proof slip: 11-5-69

LC Statement: 17 June 1969/ Z1037. C767/ SL 17 July 1969/ P3/ PC

Corbon, Jean. *Path to Freedom*. New York: Sheed and Ward, 1969.

Reviewed: *Kirkus* 2-1-69; Ordered: 4-30-69; LC 69-16993; Date of arrival of proof slip: 11-5-69

LC Statement: 5 May 1969/ BX2350.2.C6313/ SL 8 October 1969/ P4/ PC

Coy, Stanlee Miller. *The Single Girl's Book*. Englewood Cliffs, N.J.: Prentice-Hall, 1969.

- Reviewed: *Library Journal* 6-15-69; Ordered: 9-25-69; LC 69-15833; Date of arrival of proof slip: 10-20-69
 LC Statement: 12 June 1969/ HQ 800.C6/ SL 16 September 1969/ P4/ PC
 Crown, James Tracy. *The Kennedy Literature*. New York: New York University Press, 1968.
- Reviewed: *Library Journal* 12-1-68; Ordered: 5-13-69; LC 68-29428; Date of arrival of proof slip:
 LC Statement: 8 May 1969/ Z8462.8.C7/ SL 20 May 1969/ P2/ NPC
- Crutcher, Minnie Selvin. *The Single Girl's Hostess Handbook*. New York: Grosset & Dunlap, Inc., 1969.
- Reviewed: *Book Buyer's Guide* 4-69; Ordered: 5-1-69; LC 68-12754; Date of arrival of proof slip: 11-5-69
 LC Statement: 10 September 1969/ TX731.C75/ SL 26 September 1969/ P2/ PC
- Delaney, Edmund T. *The Connecticut Shore*. Barre, Mass.: Barre Publishing Company, 1969.
- Reviewed: *Library Journal* 2-2-69; Ordered: 7-18-69; LC 69-12345; Date of arrival of proof slip:
 LC Statement: 4 December 1969/ F94.D4/ SL 18 December 1969/ P2/ NPC
- Ducovny, Amran. *The Billion \$ Swindle*. New York: Fleet Press Corporation, 1969.
- Reviewed: *Library Journal* 7-69; Ordered: 7-18-69; LC 74-76029; Date of arrival of proof slip:
 LC Statement: 10 July 1969/ SC 15 October 1969/ P4/ NPC
- Dunham, Katherine. *Island Possessed*. Garden City, N.Y.: Doubleday & Company, 1969.
- Reviewed: *Publishers' Weekly* 7-14-69; Ordered: 7-28-69; LC 67-20912; Date of arrival of proof slip: 10-24-69
 LC Statement: 10 September 1969/ F1916.D8/ SL 18 September 1969/ P2/ PC
- Elliott, Lawrence. *The Legacy of Tom Dooley*. New York: World Publishing Company, 1969.
- Reviewed: *Book Buyer's Guide* 7-69; Ordered: 7-7-69; LC 69-19310; Date of arrival of proof slip: 10-20-69
 LC Statement: 2 September 1969/ RA390.U5E4/ SL 17 September 1969/ P2/ PC
- Fehrenbach, T. R. *The Fight for Korea*. New York: Grosset & Dunlap, Inc., 1969.
- Reviewed: None given; Ordered: 3-31-69; LC 68-29982; Date of arrival of proof slip: 10-24-69
 LC Statement: 10 September 1969/ DS918.F36/ SL 25 September 1969/ P2/ PC
- Ferguson, Robert. *How to Make Movies*. New York: Viking Press, 1969.
- Reviewed: *Book Buyer's Guide* 4-69; Ordered: 4-30-69; LC 69-17872; Date of arrival of proof slip: 10-14-69
 LC Statement: 6 May 1969/ SC 4 June 1969/ P2/ NPC
- Fisher, Tadd. *Our Overcrowded World*. New York: Parents' Magazine Press, 1969.
- Reviewed: *Book Buyer's Guide* 6-69; Ordered: 6-19-69; LC 69-12617; Date of arrival of proof slip:
 LC Statement: NPC

Fitz-Randolph, Jane. *Writing for the Juvenile and Teenage Market*. New York: Funk & Wagnalls Company, Inc., 1969.

Reviewed: *Library Journal* 6-15-69; Ordered: 6-20-69; LC 77-86841; Date of arrival of proof slip:

LC Statement: NPC

Fleming, Donald, ed. *The Intellectual Migration*. Cambridge, Mass.: Harvard University Press, 1969.

Reviewed: *Saturday Review* 5-17-69; Ordered: 5-17-69; LC 78-75432; Date of arrival of proof slip:

LC Statement: 14 May 1969/ E169.1.F6/ SL 8 November 1969/ P4/ NPC

Frampton, Merle E. *Forgotten Children*. Boston: Porter Sargent Publisher, 1969.

Reviewed: *Library Journal* 7-69; Ordered: 7-17-69; LC 68-59136; Date of arrival of proof slip:

LC Statement: 23 July 1969/ LC4015.F72/ SL 22 October 1969/ P4/ NPC

Franklin, Denson N. *We Dream, We Climb*. Nashville: Abingdon Press, 1969.

Reviewed: *Book Buyer's Guide* 4-69; Ordered: 4-16-69; LC 69-18440; Date of arrival of proof slip:

LC Statement: 29 April 1969/ SC 19 August 1969/ P4/ NPC

Gibson, Charles Dana. *The Best of Charles Dana Gibson*. New York: Crown Publishers, Inc., 1969.

Reviewed: *Book Buyer's Guide* 6-69; Ordered: 6-12-69; LC 76-75094; Date of arrival of proof slip:

LC Statement: 28 October 1969/ SC 17 November 1969/ P4/ NPC

Guzman, German. *Camilo Torres*. New York: Sheed and Ward, 1969.

Reviewed: *Kirkus* 2-1-69; Ordered: 4-30-69; LC 69-16991; Date of arrival of proof slip:

LC Statement: 5 May 1969/ SC 9 September 1969/ P3/ NPC

Hall, Thomas S. *Ideas of Life and Matter*. Chicago: University of Chicago Press, 1969.

Reviewed: *Library Journal* 6-15-69; Ordered: 6-15-69; LC 69-16999; Date of arrival of proof slip: Nov. 1969

LC Statement: 17 July 1969/ QP21.H34/ SL 26 August 1969/ P4/ PC

Hart, Ernest H. *Encyclopedia of Dog Breeds*. New York: dist. by Crown Publishers, Inc., 1969?

Reviewed: *Saturday Review* 5-17-69; Ordered: 5-17-69; LC—None in book; Date of arrival of proof slip:

LC Statement: 26 March 1969/ SF429.A1H3/ SL 9 May 1969/ P4/ NPC

Hiltner, Seward. *Ferment in the Ministry*. Nashville: Abingdon Press, 1969.

Reviewed: *Book Buyer's Guide* 4-69; Ordered: 6-13-69; LC 69-18441; Date of arrival of proof slip: 10-30-69

LC Statement: 29 April 1969/ BV4011.H48/ SL 8 October 1969/ P4/ PC

Hoehling, A. A. *The Jeannette Expedition*. New York: Abelard-Schuman, Ltd., 1967.

Reviewed: *Library Journal* 6-1-69; Ordered: 6-19-69; LC 67-15242; Date of arrival of proof slip: 10-14-69

LC Statement: No Date of Preliminary Cataloging given/ G700.1879.H6/ SL 31 July 1969/ P2/ PC

Hogan, Elizabeth R. *The Power of Words in Your Life*. New York: Funk & Wagnalls Company, Inc., 1968.

Reviewed: *Book Buyer's Guide* 1-69; Ordered: 2-6-69; LC 68-31634; Date of arrival of proof slip:

LC Statement: 23 January 1969/ PE1585.H56/ SL 18 March 1969/ P unknown/ NPC

Hopkins, Robert S. *Darwin's South America*. New York: John Day Company, 1969.

Reviewed: *Library Journal* 5-15-69; Ordered: 5-20-69; LC 69-10815; Date of arrival of proof slip:

LC Statement: 8 July 1969/ SC 24 December 1969/ P4/ NPC

Jacob, Dorothy. *Flowers in the Garden*. New York: Taplinger Publishing Company, Inc., 1968.

Reviewed: *Library Journal* 6-15-69; Ordered: 6-13-69; LC 69-11693; Date of arrival of proof slip: 10-20-69

LC Statement: 10 September 1969/ SB406.J26 1969/ SL 16 September 1969/ P2/ PC

Jacobs, Lewis. *The Emergence of Film Art*. New York: Hopkinson and Blake, Publishers, 1969.

Reviewed: *Library Journal* 5-1-69; Ordered: 5-6-69; LC 68-31744; Date of arrival of proof slip:

LC Statement: NPC

Johnson, Jack. *Jack Johnson is a Dandy*. New York: Chelsea House Publishers, 1969.

Reviewed: *Book Buyer's Guide* 3-69; Ordered: 4-17-69; LC 78-79537; Date of arrival of proof slip:

LC Statement: 4 September 1969/ GV1132.J7A3/ 7 November 1969/ P4/ NPC

Kaltsounis, Theodore. *Teaching Elementary Social Studies*. West Nyack, N.Y.: Parker Publishing Co., Inc., 1969.

Reviewed: *Book Buyer's Guide* 7-69; Ordered: 7-28-69; LC 69-11277; Date of arrival of proof slip:

LC Statement: 9 June 1969/ SC 18 June 1969/ P4/ NPC

Kempner, Mary Jean. *Invitation to Portugal*. New York: Atheneum Publishers, 1969.

Reviewed: *Kirkus* 5-15-69; Ordered: 7-19-69; LC 75-80956; Date of arrival of proof slip:

LC Statement: 11 August 1969/ SC 3 September 1969/ P4/ NPC

Kostelanetz, Richard. *Master Minds*. New York: Macmillan Co., 1967, 1969.

Reviewed: *Publishers' Weekly* 7-14-69; Ordered: 7-28-69; LC 69-18246; Date of arrival of proof slip: 10-24-69

LC Statement: 24 October 1969/ SL 4 November 1969/ P4/ NPC

Kyusaburo, Kaiyama. *The Book of Japanese Design*. New York: Crown Publishers, Inc., 1969.

Reviewed: *Book Buyer's Guide* 3-69; Ordered: 4-8-69; LC 70-75060; Date of arrival of proof slip:

LC Statement: 24 October 1969/ SC 30 October 1969/ P4/ NPC

- Lacey, Peter. *The Wedding*. New York: Grosset & Dunlap, Inc., 1969.
 Reviewed: *Book Buyer's Guide* 4-69; Ordered: 5-8-69; LC 69-16172; Date of arrival of proof slip:
 LC Statement: NPC
- Lenz, Bernie. *The Complete Book of Fashion Modeling*. New York: Crown Publishers, Inc., 1969.
 Reviewed: None given; Ordered: 4-7-69; LC 68-59486; Date of arrival of proof slip:
 LC Statement: 28 October 1969/ HD6073.M7L4/ SL 8 December 1969/ P4/ NPC
- Levy, Claude. *Betrayal at the Vel d'Hiv*. New York: Hill & Wang, Inc., 1969.
 Reviewed: *Library Journal* 7-69; Ordered: 7-17-69; LC 73-75254; Date of arrival of proof slip: 11-18-69
 LC Statement: 26 September 1969/ D810.J4L463 1969/ SL 22 October 1969/ P2/ NPC
- Lockwood, Gillian. *Making Clothes for Young Children*. New York: Watson-Guptill Publications, 1969.
 Reviewed: *Library Journal* 2-1-69; Ordered: 3-26-69; LC 69-13172; Date of arrival of proof slip:
 LC Statement: NPC
- MacIver, Robert M. *Politics and Society*. New York: Atherton Press, 1969.
 Reviewed: *Library Journal* 5-1-69; Ordered 5-69; LC 68-27522; Date of arrival of proof slip:
 LC Statement: 14 January 1969/ JA38.M22/ SL 10 February 1969/ P unknown/ PC
- Mathews, Marcia M. *Henry Ossawa Tanner*. Chicago: University of Chicago Press, 1969.
 Reviewed: *Library Journal* 6-15-69; Ordered: 8-6-69; LC 69-19279; Date of arrival of proof slip: 11-26-69
 LC Statement: 17 July. 1969/ ND237.T33M3/ SL 21 October 1969/ P4/ PC
- Mitchell, Mary. *Annapolis Visit*. Barre, Mass.: Barre Publishing Company, 1969.
 Reviewed: *Library Journal* 2-1-69; Ordered: 7-8-69; LC 69-12342; Date of arrival of proof slip:
 LC Statement: 28 October 1969/ SC 30 October 1969/ P2/ NPC (Note: Book not in LC.)
- Miyoshi, Masao. *The Divided Self*. New York: New York University Press, 1969.
 Reviewed: *Library Journal* 3-3-69; Ordered: 4-22-69; LC 69-19261; Date of arrival of proof slip:
 LC Statement: 12 September 1969/ PR461.M55/ SL 27 October 1969/ P4/ NPC
- Moustakas, Clark. *Personal Growth*. Cambridge, Mass.: Howard A. Doyle Publishing Company, 1969.
 Reviewed: *Library Journal* 7-69; Ordered: 7-16-69; LC 76-79235; Date of arrival of proof slip:
 LC Statement: 11 August 1969/ SC 4 December 1969/ P4/ NPC
- Mullen, Thomas J. *The Dialogue Gap*. Nashville: Abingdon Press, 1969.
 Reviewed: *Library Journal* 5-1-69; Ordered: 6-16-69; LC 69-18444; Date of arrival of proof slip:
 LC Statement: 29 April 1969/ SC 18 August 1969/ P4/ NPC

- Ochs, Robert. *The Death in Every Now*. New York: Sheed & Ward, Inc., 1969.
Reviewed: *Library Journal* 4-1-69; Ordered: 4-17-69; LC 69-19253; Date of arrival of proof slip:
LC Statement: 5 May 1969/ SC 15 September 1969/ P4/ NPC
- Oliver, Smith Hempstone. *The Smithsonian Collection of Automobiles and Motorcycles*. Washington: Smithsonian Institution Press, 1969.
Reviewed: *Library Journal* 3-1-69; Ordered: 6-7-69; LC 68-9579; Date of arrival of proof slip:
LC Statement: NPC
- Peterson, Joyce, and Mercer, Marilyn. *Adultery for Adults*. New York: Coward-McCann, Inc., 1968.
Reviewed: *Book Buyer's Guide* 11-68; Ordered: 3-7-69; LC 68-8574; Date of arrival of proof slip:
LC Statement: 5 March 1969/ PN6231.A28P4/ SL 14 April 1969/ P2/ NPC
(Note: Book not in LC.)
- Platt, Anthony M. *The Child Savers*. Chicago: University of Chicago, 1969.
Reviewed: *Library Journal* 7-69; Ordered: 7-18-69; LC 69-14827; Date of arrival of proof slip: 10-30-69
LC Statement: 11 August 1969/ HV9104.P53/ SL 25 September 1969/ P4/ PC
- Price, Carl E. *Trails and Turnpikes*. Nashville: Abingdon Press, 1969.
Reviewed: *Book Buyer's Guide* 4-69; Ordered: 4-20-69; LC 69-18445; Date of arrival of proof slip:
LC Statement: 29 April 1969/ SC 12 August 1969/ P4/ NPC
- Rapoport, Amos. *House Form and Culture*. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1969.
Reviewed: *Library Journal* 7-69; Ordered: 7-18-69; LC 69-14550; Date of arrival of proof slip: 11-21-69
LC Statement: 28 February 1969/ GN414.A1R33/ SL 20 October 1969/ P4/ PC
- Riedman, Sarah R. and Gustafson, Elton T. *Focus on Sharks*. New York: Abelard-Schuman, Ltd., 1969.
Reviewed: *Book Buyer's Guide* 2-69; Ordered: 7-19-69; LC 68-8663; Date of arrival of proof slip:
LC Statement: NPC
- Ritchie, Barbara. *The Riot Report*. New York: The Viking Press, 1969.
Reviewed: *Library Journal* 7-69; Ordered: 7-18-69; LC 69-18261; Date of arrival of proof slip:
LC Statement: 14 May 1969/ SC 25 May 1969/ P2/ NPC
- Rothenberg, Polly. *Metal Enameling*. New York: Crown Publishers, Inc., 1969.
Reviewed: *Library Journal* 7-69; Ordered: 9-69; LC 70-75079; Date of arrival of proof slip:
LC Statement: 28 October 1969/ TS700.R6 no date/ P unknown/ NPC
- St. Pierre, Brian. *The Fantastic Plastic Voyage*. New York: Coward-McCann, Inc., 1969.
Reviewed: *Library Journal* 7-69; Ordered: 9-25-69; LC 69-19026; Date of arrival of proof slip:
LC Statement: 14 May 1969/ GV840.S8S2/ SL 21 May 1969/ P2/ PC

Schlesinger, Arthur M. *Nothing Stands Still*. Cambridge, Mass.: Harvard University Press, 1969.

Reviewed: *Library Journal* 5-1-69; Ordered: 6-16-69; LC 69-18045; Date of arrival of proof slip: 11-26-69

LC Statement: 18 March 1969/ E178.6.S33 1969/ 19 June 1969/ P4/ PC

Schuyler, Philippa. *Good Men Die*. New York: Twin Circle Publishing Company, 1969.

Reviewed: *Library Journal* 4-1-69; Ordered: 4-24-69; LC None; Date of arrival of proof slip:

LC Statement.: NPC

Sealsfield, Charles. *America: Glorious and Chaotic Land*. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1969.

Reviewed: *Book Buyer's Guide* 4-69; Ordered: 4-16-69; LC 69-14473; Date of arrival of proof slip:

LC Statement: 18 March 1969/ SC 18 November 1969/ P4/ NPC (Note: Jordan, Emil Leopold. Problem of entry must have caused delay. Entry on prelim. cards changed and never caught in process file. Book was sent to Subject 18 November 1969.)

Seymour, Whitney North, ed. *Small Urban Spaces*. New York: New York University Press, 1969.

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Increasing Production in a Small University Catalog Department

CHRISTINA LANDRAM
Head, Catalog Department
Georgia State University, Atlanta

Production was increased in the Catalog Department of a small university library by analyzing the duties of the staff and assigning duties to the proper level of personnel. Further improvement was made through the use of process forms and machines so that the department was able to handle a book budget which increased 600 percent with only a 400 percent increase in staff while at the same time the difficulty of the material cataloged increased and a recataloging project of periodicals was in process.

APPROXIMATELY EIGHT YEARS AGO, when the administration of the Catalog Department at Georgia State University changed, some means was sought to increase production. At that time the university was a college with a book budget of \$93,500 and approximately 50,000 volumes classed in Dewey which had to be reclassified to Library of Congress and recataloged. The staff consisted of two professionals, one subprofessional, and three clerks. In order to keep up with an increased budget and to complete the reclassification, it was necessary to eliminate unnecessary work and to simplify procedures as much as possible.

The first step taken was an analysis of the work performed by professionals. Duties of professionals at that time included: original cataloging and classification; cataloging books with Library of Congress copy; revising filing; revising typing of catalog cards; teaching clerks to type and file catalog cards; and searching the printed catalogs when LC cards were not received. As each duty was analyzed, it was determined that assignment of that duty could be made to the following level of personnel.

1. Original cataloging and classification—professionals
2. Cataloging books with Library of Congress copy—subprofessionals (since LC call numbers and subject headings were accepted as they appeared on the card except for bringing the form of older headings up to date)
3. Revising filing—professionals (since, in this library, this is the point at which subject cross-references are made and all conflicts regarding entry and subjects are resolved)

4. Revising typing of catalog cards—clerks
5. Teaching clerks to file—clerks
6. Teaching clerks to type catalog cards—clerks
7. Searching the catalogs for printed LC copy—clerks

Only two duties were left to professionals: original cataloging and classification, and revising filing. To this, two new duties were added: teaching subprofessionals to catalog with LC copy, and revising the work of subprofessionals.

After unnecessary duties of professionals were eliminated, the remaining work performed by professionals was analyzed to determine if better procedures could be formulated. The typing of one perfect unit card for typists to copy and the handwriting of long lists of instructions for typists to follow were eliminated through the use of process forms. Recurring instructions appear on the front of the form and the cataloger prepares a rough draft of the unit card on the verso of the slip. Three separate forms were prepared and color-coded for identification: monographs (white), serials (yellow), and periodicals (green). Copies of these forms can be found at the end of this article. Forms were designed to be mimeographed two per 8½ x 11 sheet of paper and in such a way that the form extends beyond most books.

Work formerly assigned to professionals, but which had been determined not to be on a professional level, had to be assigned to someone else. Clerks had formerly been responsible for typing and filing catalog cards. A new level of clerks was instituted: clerical reviser. This class would be responsible for revising the typed catalog cards, teaching clerks to type and file the cards, and teaching clerks to search for LC copy. This class was to be formed from existing clerks. The duty of the actual searching was transferred to the regular clerks. In conjunction with the use of clerks for searching for LC copy, the use of photocopying machines to copy the material found was begun.

The one subprofessional in the department had been adding volumes and copies and was able to absorb some of the cataloging with LC cards or copy. As the university book budget grew, more subprofessionals were added. Exceptional subprofessionals were taught to do original cataloging and classification with their work revised by a professional. Also, the use of a Thermofax copy of an LC card on which to indicate the changes to be made in the cards was instituted. The Thermofax machine is also used to make temporary entries for the catalog and shelflist.

Arrangement of the work area providing for a smoother flow of work took place with a move to a new building.

Although the administration of the department is certain that the work is proceeding in a more efficient manner with money saved by restricting the duties of each class of employee, no statistics exist to prove it. Changes, necessarily, took place over a period of several years along with several changes in personnel. It was not possible to have a controlled experiment with "before" and "after" figures to prove the

point. However, the reclassification and recataloging of the Dewey collection was completed about three years ago and a recataloging project of periodicals was begun. In addition to the recataloging, the department is now handling a book budget of \$562,521 with a staff of five professionals, six subprofessionals, nine clerks, three clerical revisers, and one clerical supervisor, with one professional and two subprofessionals devoting almost full time to recataloging periodicals. While the staff increased 400 percent, a 600 percent increase in the book budget brought in greater quantities of more difficult material—a greater percentage of books without LC cards, more works in foreign languages (including Japanese), and a rapidly expanding microform collection. Perhaps one of the most valuable, but again unmeasurable, results of the changes is improved morale in the department. Professionals feel they are performing professional tasks and other classes of personnel have an opportunity for advancement according to their ability.

MONOGRAPHS

- 1. Call No.:
- 2. Prepare cards as over.
- 3. Add to SL.
- 4. Tracing for sub. and/or a.e. add (change) on ME only:

- 5. On SL under call no. write in pencil: —3d cat. —4th cat.
- 6. Name cross ref and authority card:

- 7. Binder no.— Press.B.— Pam Bind—
- 8. Make card 2 for ME only. Erase on all other cds: "Cont on next card."
- 9. Stamp all cds except U.C., SL and ME: "For contents . . . underscored above." Underline Main Entry.
- 10. Series:
 - Erase "series" in tracing on ME —Type series as shown on card —add —change series tracing on ME as below and type card:

- 11. Type: —label(s) —book card —pocket. Change: —no. on book card.

Open entries

- 1. Write on ME card: Library has
- 2. Stamp all cds except U.C., SL & ME: "For vols. . . . underscored above." Underline Main Entry.
- 3. Write on each card 1 except SL and U.C. card: Library has

PERIODICALS

- 1. Prepare cards as over.
- 2. Add to SL:
- 3. Tracing for sub. and/or a.e. add (change) on ME only:

- 4. Make Ref. authority card and— cross Ref. card (s) . Stamp:
Per beside x on authority card and in lower right corner
of one x Ref. card.

- 5. P. bind.
- 6. Type ——label (s).
- 7. Make 2 holding cards. Stamp on all cards except SL and
ME: "For vols. Lib. has see entry underscored above."
Underscore:

- 8. On ME and SL stamp: "For vols. Lib. has see card ——."
- 9. Type slip like ME for New Ser. Titles and type under
Holdings:

- 10. Make 2 green holding cards. On them type:

- 11. On ME and SL stamp: "Lib. keeps issues only for last ——
yr. (s) .
- 12. Stamp: "Science" above call no. on all cards.
- 13. Make green thermofax slip of Main Entry. Write in red
pencil at top:

DUMMY NEEDED

SERIALS

- 1. Prepare cards as over.
- 2. Add to SL:
- 3. Tracing for sub. and/or a.e. add (change) on ME only:

- 4. Make Ref. authority card and— cross Ref. card (s) .

- 5. Bindery No.—, P. bind—
- 6. Type——label (s) .——book card—— pocket.
- 7. Make 2 holding cards. Stamp on all cards except SL and
ME: "For vols. Lib. has see entry underscored above."
Underscore:

- 8. On ME and SL stamp: "For vols. Lib. has see card——."

- 9. Type slip like ME for New Ser. Titles and type under *Holdings*:
- 10. Series:
 - Erase "series" in tracing on ME
 - Type series as shown on card
 - add—change series tracing on ME as below and type card:
- 11. Make one of the holdings cards Ref.
- 12. Prepare card for Ref. SL referring to regular SL.
- 13. Stamp on all cards: "Reference has only the latest issue."
- 14. On regular SL print in pencil below call no.: —3d cat.
—4th cat.

Cataloging Pirated Chinese Books

SZE-TSENG WANG

East Asian Cataloger

The Ohio State University Libraries

Columbus

One of the most difficult problems in cataloging Chinese materials is how to handle the pirated editions mass-produced in Hongkong and Taiwan. The writer illustrates the various types of pirated Chinese books with specific examples, and then describes the basic steps he has been following for the proper identification of these books. In addition, he suggests several alternative remedies in case the original is discovered after the book has already been cataloged according to the information given by the book pirate.

ONE OF THE MOST DIFFICULT PROBLEMS in cataloging Chinese books is how to handle the pirated editions mass-produced in Hongkong and Taiwan. The purveyors of these pirated books include the inexperienced in the publishing business as well as such well-established firms as Shang wu yin shu kuan and Chung-hua shu chü. If the pirated books are not exactly the bibliographer's delight (because they make it easier for him to dispose of his budget), they are certainly the cataloger's nightmare. A good bibliographer is supposed to identify each acquisition after he has received it, if not before he places his order. But the bibliographer, after all, is not responsible for the creation of authentic and permanent records of the collection. On the other hand, the cataloger has the responsibility to create just such records by describing all the materials of the collection as correctly as possible and by bringing them into their proper relationships. With the proliferation of pirated Chinese books, the cataloger suddenly has a new role imposed upon him. He must use all his imagination and resourcefulness to identify those materials which in their pirated editions have been altered or even mutilated beyond recognition. A good cataloger of Chinese materials, therefore, contributes considerably more to the acquisition work than it is normally expected of a cataloger, while he still has the cataloger's regular responsibility of making the materials available.

The majority of books pirated so far were originally published between 1912, when the Republic was established, and 1949, when the Communists came to power. They are chiefly reference tools and works in social sciences, humanities, and recreation. The merchants apparently feel that there is a larger market for books in these areas. Unfortunate-

ly, the bibliographies for these subjects during this period are inadequate and at present almost impossible to acquire. The best bibliography is the *Quarterly Bulletin of Chinese Bibliography*, edited by the National Library of Peking and published by the Chinese National Committee on International Cooperation. Its sections, "Books in Chinese," arranged by broad subjects, and "Index translationum," arranged alphabetically by the names of the original authors, are particularly valuable for the identification of these pirated Chinese books. However, it does not cover the entire period from 1912 to 1949. It began publication in 1934, suspended in 1937 when the Sino-Japanese conflict broke out, and resumed publication in 1940 as a new series. (The Chinese edition was revived in 1939.) The cumulation of the section, "Books in Chinese," covering the years 1933 to 1937 was published in 1940 under the title *Selected Chinese Books*, with the classified arrangement of the *Quarterly Bulletin* largely retained. The publishers' and booksellers' lists between 1912 and 1949, which are unavailable now, usually give only title, author, price, and publisher, in that order. They are hardly satisfactory for bibliographical identification. For materials published during the Sino-Japanese conflict, there have never been any comprehensive bibliographies published, and even the numerous incomplete ones are beyond the reach of most American libraries. After the Communists came to power, they began in 1951 the publication of *Ch'üan kuo hsin shu mu*, a sort of Chinese Books in print, and published in 1958 a national bibliography *Ch'üan kuo tsung shu mu*. Neither bibliography contains any sizable list of books published between 1912 and 1949, obviously for ideological reasons. The Nationalists in Taiwan have also been publishing national bibliographies. The National Central Library published in 1964, *Chung-hua min kuo ch'u pan t'u shu mu lu hui pien*, and began its publication of *Monthly List of Chinese Books* in 1960, which was changed to *Chinese Bibliography* in 1970. These bibliographies, though more readily available, do not list any of the authors who have remained on the China mainland. Under these circumstances, the identification of pirated Chinese books has become one of the most challenging tasks facing the cataloger.

In a well-established Chinese collection in an academic library, the cataloger, at least theoretically, should have little difficulty in handling pirated books. He has most likely in his collection more and better bibliographies and other reference tools published in China before 1949 which he can readily consult. Another advantage he has is the possibility of already having the original edition from which the piece in hand is pirated. An experienced cataloger who has developed a bibliographical "sixth sense" will compare the piece in hand with the title already in his collection if he has reason to suspect that the latest acquisition is a mere reproduction instead of a new work. However, in a Chinese collection started in the past decade, the cataloger probably has an insufficient number of bibliographies and other reference tools, some of which might even be pirated editions themselves. Even if the cataloger has

found a clue in the bibliography as a point of departure, he may not have the bibliography listing the original work. Often he does not have the original work in his collection to compare with the piece in hand. Indeed, the cataloger will have to apply all his professional skills intelligently if he attempts to have pirated Chinese books properly organized for use.

The Ohio State University Libraries are among those which began to build a Chinese collection to support their teaching program within the past decade. The cataloger, in handling the pirated books, presumably shares many of the problems encountered by the catalogers of other recently established Chinese collections. This article presents the various types of pirated Chinese books worked on so far and discusses the various possibilities of dealing with this difficult problem. It is hoped that this article will engender greater interest in the discussion of this problem and solicit different and even better solutions.

The pirated Chinese books that have been acquired at the Ohio State University Libraries since the establishment of the Chinese collection eight years ago can be classified into the following types.

(1) *The authorship is attributed to a fictitious person.*

Examples:

- a. *Ying-kuo ts'ai fêng lu* (Life and customs of England) is written by Ch'u An-p'ing. In the pirated edition produced in Taipei, it gives the author's name as Ch'u P'ing.
- b. *Chung-kuo su wên hsüeh shih* (A history of the Chinese folk-literature) is written by Chêng Chên-to (1897-1958). In the pirated edition produced in Taipei, it gives the author's name as Chêng Tu.

(2) *If the original work has a personal author, it is omitted in the pirated edition. Instead, the publisher of the pirated edition names itself as the author.*

Examples:

- a. *Ming tai ssü hsiang shih* (A history of thought of the Ming dynasty) is written by Jung Chao-tsu (1899-). In the pirated edition produced in Taipei, the author's name is nowhere to be found. Instead, the publisher of the pirated edition names itself as the author.
- b. *Chung-kuo wên hsüeh shih ta kang* (An outline history of the Chinese literature) by the same author is given the same treatment by the same publisher.
- c. *Shih lun* (On poetry) is written by Chu Kuang-ch'ien (1898-). In the pirated edition produced in Taipei, the author's name is nowhere to be found. Instead, the publisher of the pirated edition names itself as the author.

d. *Wên i hsin li hsüeh* (The psychology of literature) by the same author is given the same treatment by the same publisher.

(3) *Part of the original work is reproduced as a new and different work by altering its title and attributing its authorship to a fictitious person.*

Example:

Chung-kuo chêng chih chih tu shih (A history of the political institutions of China) is originally a two-volume work, written by Tsêng Tzŭ-shêng. The publisher of the pirated edition splits up the work into two different books. The first volume is assigned the title *Chung-kuo hsien Ch'in chêng chih chih tu shih* (A history of the political institutions before the Ch'in dynasty in China); while the second volume is given the title *Chung-kuo Ch'in Han chêng chih chih tu shih* (A history of the political institutions of the Ch'in and Han dynasties in China). The authorship of both books is attributed to a fictitious person named Tsêng Chin-shêng.

(4) *If the pirated book is a translation, the publisher gives credit only to the author of the original work, and names itself as the translator. This practice gives the impression that the pirated edition is a new translation.*

Example:

Wên hsüeh kai lun (A general treatise on literature) is the Chinese translation by Sui Shu-sên (1906–) of the Japanese work *Shin bungaku gairon* (A general treatise on the new literature) by Homma Hisao (1886–). In the pirated edition produced in Taipei, the original title of the translation and the author of the original work are given, but the translator's name is nowhere to be found. Instead, the publisher names itself as the translator.

(5) *If the same book is reproduced by a different publisher, the latter has the obligation of stating that it is a reproduction. If it is reproduced under a different title, there is more reason to expect the publisher to give the original title and name the original publisher. The publisher of the pirated edition deliberately alters the title and markets the reproduction as an entirely new work by the same author.*

Examples:

- a. *Wu t'i chi* (Untitled) by Chao Ch'ing-ko in the pirated edition produced in Hongkong is assigned the title *Hsien tai nü tso chia hsiao shuo hsüan* (Selected stories of contemporary women writers).
- b. *Liang Jên-kung Hu Shih-chih hsien shêng shên ting yen chiu kuo hsüeh shu mu* (Bibliographies for Chinese studies as approved by Messrs. Liang Jên-kung and Hu Shih-chih) has been pirated in at

least three different editions. The pirated edition produced in Hongkong is assigned the title *Kuo hsüeh pi tu shu chi ch'i tu fa* (A list of "must" books for Chinese studies and how to study them). One of the pirated editions produced in Taipei is assigned the title *Kuo hsüeh yao chi chü mu* (A bibliography of the essential books in Chinese studies), and another the title *Kuo hsüeh yen chiu fa san chung* (Three ways of studying Chinese studies). All three pirated editions give only Liang Ch'i-ch'ao (whose courtesy name is Jên-kung) as the author, although they all contain the bibliography approved by Hu Shih (whose courtesy name is Shih-chih).

The titles discussed above constitute only a minimal percentage of the pirated Chinese books acquired at The Ohio State University Libraries since the establishment of their East Asian collection eight years ago. However, they do represent the various important types of pirated Chinese books they have acquired up to the present. The Chinese collection of the University Libraries is young and naturally does not contain all the major bibliographies for the identification of these pirated books. Nor does it, needless to say, contain many of the original works from which these pirated editions are produced. The writer is also dubious about the wisdom of exhaustive searches through the Chinese collection at the expense of making many other materials available more promptly. Therefore, he has been working with a limited number of reference tools and is still attempting to describe all the materials as correctly as possible so that they can be properly organized for use. The basic steps the writer has followed up to the present are as follows.

(1) To begin with, the writer has found from personal experience that the best asset in cataloging the pirated Chinese books is his book knowledge. If he knows about the original work through past usage or even personal acquaintance with its author, which is occasionally the case, he will proceed directly to consult the author lists of various bibliographies. In other words, his job will be simply to gather some written evidence to confirm what he suspects. In case he has only a faint memory of the exact author or title, he may have to try more than one possibility to find the title in question. For such purposes, the *Quarterly Bulletin of Chinese Bibliography* or the *Selected Chinese Books*, each with its index, is the most scholarly work to consult. The *National Union Catalog* since 1958 is the most satisfactory since it lists all the titles in one alphabet and gives full bibliographical information. The *University of London School of Oriental and African Studies Chinese Catalogue: Authors* in one alphabet is just as easy for consultation and valuable for identification. The *University of California East Asiatic Library Author-Title Catalog* contains an impressive number of titles but is difficult to use on account of its peculiar and complex arrangement which coincides with a system of locally developed rules of descriptive cataloging.

(2) In case the author vanishes from the pirated edition and the cat-

aloger is unfamiliar with the original work, he will have only the title as a point of departure. In some pirated editions, when even the title has been altered beyond recognition, a cataloger must use his imagination and resourcefulness to identify the piece in hand by circumstantial evidence such as collation and other bibliographical characteristics. For such purpose, the cataloger unfortunately cannot benefit from the *National Union Catalog* which does not contain a title list. The best bibliography for identifying a pirated Chinese book which gives only the original title, or some title echoing it, is the *University of London School of Oriental and African Studies Chinese Catalogue: Titles*. If the title in question is not there, the cataloger will consult the *University of California East Asiatic Library Author-Title Catalog*. Some of the bibliographies compiled by the Chinese which list all the materials under titles sometimes can be valuable for bibliographical identification.

(3) It often happens that this writer fails to identify the piece in hand after he has searched through the various types of bibliographies discussed above. However, judging from the preface, the text, and even the printing he has a strong suspicion that he is handling a pirated edition instead of an original work. The authorship in the original edition might be entirely different from what is given on the title page or in the colophon of the piece in hand. If he is familiar with subject headings, he can then turn to the subject lists of various bibliographies. Since the subject headings do not have scientific exactitude, he sometimes may have to search under more than one possibility. For such purpose, the *Library of Congress Catalog, Books: Subjects* is the best, since it lists specific subject headings and gives full bibliographic description. Next come the *University of London School of Oriental and African Studies Chinese Catalogue: Subjects*, and the *University of California East Asiatic Library Subject Catalog*. The various bibliographies published in China usually are arranged by subjects too broad for easy consultation, and do not cover the materials published between 1937 and 1949 adequately, as has been previously noted.

The subject approach is perhaps the cataloger's last resort for identifying a pirated Chinese book. If he is still unable to identify the book after searching through the various subject lists, he has no alternative except to catalog it according to the information given in the book. If the pirated book gives a fictitious person as its author, the cataloger will accept it as its author, while he may strongly suspect it is not. Theoretically, the cataloger owes nobody any apology if he, having been deceived by the publisher of the pirated edition, accepts the name given in the book as the author. If the book thus cataloged happens to be a classic, it will only reflect on the cataloger's book knowledge. It appears desirable, then, for the cataloger to keep a record of all the pirated books which he suspects have some irregularities about the authorship given in the book.

The cataloger under certain circumstances has no choice but to accept the authorship as it appears in the book. It is quite possible that at

a later date, he will accidentally discover the name of the original author, and sometimes also the original title, if the title has been altered by the publisher of the pirated edition. What should he do then? The following are his alternatives.

(1) He can recatalog the book, which appears to be professionally the most desirable. This has been the practice at The Ohio State University Libraries. Recataloging will make it possible to add the Chinese characters for the newly discovered original author, since the Chinese card is supposed to show the Chinese characters which the Romanized main entry represents. It will also make it possible to adjust the Cuttering in the book number so that the book will be in its logical place within the same class number after a change has been made of the main entry. On the other hand, recataloging is a costly operation, both in time and labor. If the book in question happens to be in circulation, it must be recalled, which will add to its costliness. Moreover, during the time the book is being recataloged and relabeled, with several other records in the technical services and public services being adjusted, the public will be deprived of its use.

(2) He can simply change the Romanized main entry and add a note giving the author of the original edition. This alternative is feasible provided (a) the pirated book is originally entered under a personal or corporate entry instead of the title and therefore causes no problem in indention; and (b) the Cutter number still remains in its logical place in the same class number, which sometimes surprisingly happens. However, if the changed main entry necessitates re-Cuttering, the book number on all cards must be corrected, and the book relabeled. Otherwise, it will disrupt the alphabetical order in the same class number in the shelf-list and, consequently, on the shelf.

(3) He can leave all the cards and the book as they are, but merely add an added entry for the newly discovered original author, with a note of explanation. This practice will be feasible regardless whether the pirated book is entered under author or title, and it is obviously the most economical in terms of time and labor. It appears most desirable when the book in question is a monographic set containing a considerable number of volumes. If the book is complete in a single volume and a different edition is acquired later, the cataloger will face the dilemma whether to have these two different editions separated in the collection or to recatalog the earlier edition so that both editions will be brought together. It should be pointed out that if the cataloger chooses the second alternative, he will be working on the earlier edition for the third time.

The mass-production of pirated Chinese books has created many unique and difficult problems in the organization of Chinese materials for use. This situation will continue until the politics governing the China mainland, Taiwan, and Hongkong return to normal. In the meantime, the rapid expansion of Chinese collections at many academic institutions only aggravates the situation. It is up to the intelligent cataloger

to offer ingenious solutions to the many unusual problems created by the piracy of Chinese books.

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In 1958 the Library of Congress began to include East Asian titles in its printed cards.

The Entry-Word in Indonesian Names and Titles

ZUBAIDAH ISA
Doctoral Candidate
Graduate Library School
Indiana University, Bloomington

Indonesian multiple-element personal names cause problems to catalogers who have to establish these names. The elements may all stand for first names, or for first name, surname, and title. Names may include titles which are adopted as part of personal names. Conflicting principles always arise when suggestions are made to apply an arbitrary last element entry rule for these names. Indonesia does not have a widespread national usage for surnames yet. Results of research done by way of content analysis of Indonesia's national bibliography and of some others published there showed that the inverted last element entries seemed to be preferred.

Introduction

INDONESIA IS A COUNTRY OF UNITY in her national ambition, but a land of diversity in local customs, traditions, and cultures. The Republic of Indonesia consists of approximately 3,000 islands and contains a population of about 116 million people. It is a country trying to live in thirty centuries all at once, as one of her leading writers expressed.

Indonesia was colonized for more than 340 years by the Dutch, and consequently, the Dutch language was used by the Indonesian intellectuals for more than three centuries; the Malayan language was employed by the traders and the peasants. There are an estimated 160 local languages in use throughout the islands even today.

The Indonesian people, since their independence in 1945, were aware of the necessity to speak one language for efficient communication in government, education, and commerce; the Bahasa Indonesia was therefore declared the official language throughout the Republic.

There is no state religion; religion and state are quite different matters, although about 85 percent of the population is Moslem. There is, however, freedom of worship. Artistic trends deriving from religion and traditional culture are still noticeably present in current Indonesian social and cultural development.

Indonesian people from different areas and islands have names that serve to indicate their religious and cultural background. These names

which puzzle outsiders, especially those from the Western world, create enormous problems for the cataloger who is trying to establish an Indonesian name consisting of from one to six elements.

While the young writers of the country have shown vitality and imagination in trying to adapt Western technique to an Indonesian setting, the older generation wants to preserve the traditional arts of the people, e.g., dances and craft, and especially to keep their long, historically meaningful names. In other words, Indonesia has not yet reached complete cultural unity.

The purpose of this paper is to discuss briefly the choice of entry-word for Indonesian authors who have names consisting of more than one element, such as attributes, honorific titles, and the like. Conflicting principles always arise when suggestions are made to have an arbitrary last element rule for all Indonesian names, with minor exceptions. To make it more complicated, there is no official established national practice regarding the use of any element as a surname. Each individual adopts in his own way the name that suits him best or is most convenient for him for business and official use.

One of the most important factors in Indonesian culture is a distinctive and traditional system of names and titles. The country has approximately two hundred different ethnic groups or tribes. To really describe the complicated details relating to the origin of names would result in a sizable volume. They can only be mentioned in broad outline, and then only those factors which involve problems in cataloging rules.

Indonesian Names and Titles.

The following elements normally form parts of an Indonesian name.

1. Personal name (given at birth)
2. Adult name (given when one reaches the adult age)
3. Father's personal name or given name
4. Family name
5. Clan name (or *marga* name, prevailing in the Tapanuli area, North Sumatra)
6. Attributes and titles

An Indonesian personal name can be of any origin such as European (Dutch), Arabic, Chinese, or Sanskrit. Many of the Moslem Indonesians give their children Arabic names or names derived from Arabic words. These are the common factors that result in Indonesian names. A personal name is given at birth and is used until the child becomes an adult. The most recent influences noticeable are the American and the English in names as John, Eddy, Mary, etc.

As soon as a man is a full-fledged member of society, he adopts his adult name by which he will be known and referred to from then on. He may or may not drop his personal name which was given to him at birth and used during his childhood.

Family name, now called surname, is a modern phenomenon for

many people in Indonesia. The first to use surnames or family names were the Indonesians who had been converted to Christianity, especially in the areas of North Sulawesi and the Moluccas. Then European-educated Moslem Indonesians also adopted surnames. While most of the people from the Tapanuli area have been using the *marga* name as their surnames, Christians use biblical first names.

Indonesian names mostly have attributes and titles which are indications of royalty; nobility; order of seniority of children (usage in Bali); official titles (especially in the Java Sultanates); attributes (different from rank, these titles were formerly given to officials to indicate their function and dignity); religious titles; honorary titles; and form of address.

Many Indonesians have only one (element) name; for example, the past and the present Indonesian Presidents Sukarno and Suharto. The one element name obviously does not cause problems.

However, many more Indonesians have multiple names. Given names consist of two or more elements plus the father's personal name and title. There are a variety of combinations.

Indonesian names can again be divided in single name; multiple name; names with prefixes, as Sri or Siti; married women's name; and split names, as Nata di Laga or Pura di Redja. Indonesian names are not always completely of Arabic, European, or Sanskrit origin. They are mostly a combination of one Arabic, European or other element, and at least one Indonesian element. Indonesian names are an undissoluble combination or synthesis of Indonesian, Arabic, European, Chinese, and Sanskrit elements.

Conclusion

To create a rule which will satisfy all Indonesian catalogers would be an impossibility. The discussion on cataloging rules of personal names at the International Conference on Cataloging Principles held in Paris in 1961 resulted in the decision to choose the entry-word as much as possible by agreed usage in the country of which the author is a citizen. If this is not possible, the language in which the author usually writes will be the determining factor.

Studies of some of the bibliographies published by commercial as well as government institutions show the following result. Only Indonesian authors are included in the figures listed in the accompanying table. According to these figures there are only 648 entries of the 3,905 Indonesian authors listed, which deviated from the last element entry. In other words, there is only 18 percent deviation from the total number of names listed.

Of this 18 percent, 90 percent are Indonesian names of Chinese origin. The first element of a Chinese name is the surname: for example, in the name, Gouw Giok Song, Gouw is the surname, and is consequently listed in the same order. The reason could also lie in the fact that

AUTHORS LISTED IN THE INDONESIAN BIBLIOGRAPHIES

Name of Bibliography	Listed	Last Element Entry	First Element Entry
Pekan Buku Indonesia 1954	211	197	14
Berita Bibliografi 1961	200	170	30
Berita Bibliografi 1964	450	435	15
Berita Bibliografi 1966	298	277	21
Bibliografi Nasional Indonesia 1963-65	850	710	140
Indonesian Abstracts 1961	114	56	58
Indonesian Abstracts 1962	119	85	34
Indonesian Abstracts 1963	594	429	165
Indonesian Abstracts 1964	229	163	66
Indonesian Abstracts 1965	124	98	26
Indonesian Abstracts 1966	92	66	26
Indonesian Abstracts 1967	80	66	14
Bibliografi Nasional Indonesia, Kumulasi 1964-1965	391	365	26
Regional Bibliography of Social Science Publication Indonesia 1951	153	140	13
Total	<u>3,905</u>	<u>3,257</u>	<u>648</u>

more and more Indonesian Chinese writers spell their names as one word; thus, Gouwgioksong.

The *Pekan Buku Indonesia 1954* listed all the leading Indonesian authors under the last element of their names, with very minor exceptions. The names were all inverted and the last element treated as if they were surnames. With the names short biographical sketches and lists of their works were included. Some of the names which appeared under the first elements were authors born before 1900; for example, *Ahmad gelar Datuk Batuah, 1892-*. This *Pekan Buku Indonesia 1954* was published by one of the leading publishers in Djakarta, Indonesia. Trained librarians were on the editorial board, some educated in Indonesia, and some in the Netherlands.

The *Berita Nasional Indonesia* is the national bibliography for Indonesia. It is edited by librarians who received training locally as well as in other countries as the United States, the Netherlands, and New Zealand.

The following hypotheses can be stated.

1. It is safe to assume that these bibliographies or bibliographical tools were produced with careful consideration given to national usage, author's preference, practicality, and the prevailing trend or attitude of modern authors regarding their names.

2. The Indonesian national bibliography is arranged in a fashion which reflects the basic principles of the Paris Conference and the Anglo-American Rules. Needless to say, the librarians who are presently

working on the proposed rules are the officials of the regulatory bodies in the country appointed to establish cataloging rules for Indonesian names. The inverted last element entry-word seemed to be preferred, with some exceptions and specificity in the treatment of some titles.

3. The last element of the name is, in nine out of the ten cases, whether it is a compound personal name, an adult name, or a title, usually the distinctive part of the name. Here is an example: *Mohammad Hatta*. Most people call him *Mr. Hatta*, his followers and friends would call him *Pak Hatta* (Father Hatta) or *Bung Hatta* (Brother Hatta) the more democratic way. There are thousands, if not millions of people with names starting with *Mohammad*.

4. A list of all different kinds of titles should be composed which indicate those which have been adopted as given names; e.g., *Andi* (from the Kalimantan area), *Gusti* (from Java), and those which are likely to be adopted as given names.

It is overwhelming and bewildering because titles are used in almost every part of the Indonesian islands. Fortunately today the real connotation of the title of nobility is fading away, perhaps not completely, but the tendency is there. At least the younger generation is more liberal, democratic, and progressive, and does not attach much importance to the meaning of the titles. The titles, whether they stand for nobility, rank, or adult name, are assuming the function of surnames.

Thus far there is no official cataloging rule for Indonesian names in Indonesia. The rule for the entry-word is not yet established. Yet it is safe to say that the majority of the officials and nonofficials in Indonesia silently agreed upon the adoption of the inverted last element entry-word and the treatment of this element as if it were a surname.

The distinctive part is the last element, which does not necessarily mean that only the part after the comma is the first name or the given name, as is the case with Western names. Not even an Indonesian cataloger thoroughly familiar with the history of the country could with persistent accuracy determine the meaning of each part of an Indonesian name and what it stands for. The final solution for entry-word must be an arbitrary last element rule for almost all Indonesian names. The survey also showed clearly that this is becoming the trend.

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An Analysis of the Universal Decimal Classification as a Term System for Nuclear Science and Technology

ROBERT D. STUEART, *Visiting Lecturer*
College of Librarianship, Wales
Aberystwyth, United Kingdom

Explores the possibilities of merging the terminology of the Universal Decimal Classification System with that of a term system—Engineers Joint Council's Thesaurus—for nuclear science and technology. Concludes, from the evidence presented, that UDC can be effectively used as a term system. Proposes that the two systems coordinate the terms and merge a major thesaurus (EJC) with an effective classification scheme of international scope (UDC) to provide a needed tool in the area of classification and documentation.

Introduction

COORDINATE INDEXING has brought about a tremendous interest in technical terms. *Roget's Thesaurus* has been used for many years as a systematic glossary for all areas of knowledge.¹ However, in these times of rapid change, not even the new 1952 enlarged edition of it is complete enough for terms in modern science and technology.

There are several dozen thesauruses which have been compiled in the last few years to provide for new terminology, particularly in the areas of science and technology and especially in nuclear science and technology. A classification system should also exist in which (a) the concepts are peculiar to a particular discipline; and (b) there is agreement on the terms themselves. If this is true could the classification system itself be used as the term system for that subject area?

There is a great need for exploration and implementation of compatibility among classification systems and thesauruses, including standardized vocabularies. This stock of terms is of greatest interest in documentation. Knowledge contained in a document can then be indexed either by number or several numbers in a document system (item-entry) or by a number of concepts or terms characteristic of the document (term-entry).

"There has been some discussion concerning the use of UDC (Universal Decimal Classification) as (such) a systematic term list."² There would be several advantages if this could be done, not the least of

which is the fact that the Universal Decimal Classification is published in several languages (presently, English, French, German, Italian, Spanish, Portuguese, Japanese, Russian, Finnish, Hungarian, Czech, Rumanian, Serbo-Croatian, Swedish, Polish, and Dutch).

As has been stated, in documentation there is a demand for a classification system for terms—a term system—based on the pure semantic signification of terms. To investigate the principal strengths and deficiencies of an existing, accepted document system seems then to be an important task, and a possible right step in cooperation among thesaurus builders and classification services.

Gertrude London states there are three trends mainly responsible for much of the inconsistency, incompatibility, and misunderstanding of indexing in its widest sense which prevent effective cooperation in the fields of information retrieval, documentation, and librarianship.

1. Single-minded insistence on the superiority of only one of the numerous indexing languages to the exclusion of those practiced by supporters of other systems (this includes classification schemes which may be regarded as a special form of indexing);

2. the wide variation in the quality of indexes and standards of indexing, especially of those derived from uncontrolled or too strictly controlled vocabularies;

3. the lack of precision, the vagueness and ambiguity of the class headings in most classification schemes.³

How much ambiguity and variation is there between the terms in a thesaurus and those in a classification system? Any exploration and implementation of compatibility among classification systems and thesauruses will necessarily include standardizing the vocabularies.

There are, of course, three types of controlled indexing vocabularies: (1) classification schemes, (2) subject heading lists, and (3) thesauruses. There are many points at which these vocabularies can be shared and many ways of doing so, although when it is done, according to the literature, it is usually on a partial basis only. This paper is an investigation of the feasibilities of merging, combining, or adapting the terminology of one such list with that of another, that is, exploring the effectiveness of terms being used in a general classification scheme (Universal Decimal Classification) and how precisely the terminology relates to a special term list (The Engineers Joint Council *Thesaurus*)⁴ in the area of nuclear science and technology, to see if UDC satisfies in matter as well as in manner most, if not all, of the requirements for a term system (classed thesaurus).

In this paper the Universal Decimal Classification will be referred to as UDC, and the Engineers Joint Council *Thesaurus* will be referred to as *EJC*.

Limitations of Study

A new unabridged English edition of UDC has been published but, unfortunately, is not yet available to me. However, there is a special

edition for nuclear science and technology which is available.⁵ This, then, is the subject limitations of this study.*

The *EJC* is a thesaurus of terms common to the whole of science and technology and intended for coordinative indexing. It displays the descriptors grouped by subject area based on the Committee on Scientific and Technical Information (COSATI) subject category list which is directed primarily toward unification of subject content, disciplines, and terms, rather than manipulation of terms to produce indexes.⁶

Assumption

A systematic universal thesaurus can be created, in the areas of nuclear science and technology, by establishing a vocabulary which is compatible with a universal classification system.

Hypothesis

The Universal Decimal Classification system can be used as a term list for the areas of nuclear science and technology.

In his final remarks at the Seminar on the Universal Decimal Classification in a Mechanized Retrieval System, Robert Freeman of the Scientific Information and Documentation Division, Environmental Sciences Services Administration, and chairman of the Subcommittee on UDC of the United States National Committee for FID, suggested, among other things, investigation of the possibility of a concordance between UDC and the Engineering Joint Council/Department of Defense *Thesaurus of Engineering and Scientific Terms*.⁷

Before that proposal there had been many experiments on the use of UDC as an indexing tool in mechanized systems. In one such study Malcom Rigby found that some mechanized operations were possible for the control of meteorological and geostrophysical literature and the UDC schedules in the fields; namely,

1. Thesaurus manipulation and updating;
2. Current title arrangement and indexing;
3. Bibliographic preparation and indexing;
4. UDC schedule maintenance, updating and presentation;
5. Multi-lingual UDC manipulation and presentation;
6. Alphabetical indexing of systematic or hierarchical schedules (e.g. UDC or geographic place lists);
7. Selective retrieval and printout of titles.⁸

He has also made a cost study on the feasibility of mechanizing the UDC in any or all languages—there were sixteen languages at the time he made the study—and was experimenting only in the 52/Astronomy/, 55/Geology and Meteorology/, and 56/Paleontology/ clas-

* I would hope to compare, at a later date, when the unabridged English UDC is available to me, the terminology in nuclear science and technology in the two editions to determine any updating of the terms which would further support or reject my hypothesis. This, of course, is another study.

sification ranges. He determined from his study that not only can hierarchically arranged and indented schedules be printed out in a few minutes and at little expense, but multilingual or comprehensive editions can be produced just as easily. He summarized his findings by stating:

Thus, as any fool can plainly see, the UDC provides a simple, yet powerful tool for detailed organization (classification, arrangement, storage, retrieval, indexing and dissemination) of information in any special or general field of knowledge. . . . Moreover the UDC is an international language that gets away from languages, grammar, semantics, ambiguity, etc.⁹

It should be pointed out here that with all of these experiments that have been conducted with UDC, plus the fact that *EJC* is available on magnetic tape, it would be both profitable and relatively easy to compare the terminology of the two systems in all areas of science and technology—but that is another proposal.

With the above facts in mind, this paper approaches one special area—nuclear science and technology—with the idea that there is probably a significant match in the terminology used in the two systems.

Literature Survey

All known general works in monographic and serial form have been consulted and the pertinent ones are cited in the bibliography.

Some experts, writing about classification systems, have classification of knowledge, concepts, or ideas in mind; others have documents in mind. To be sure, these are completely different in some cases and to enumerate the intents of both *EJC* and UDC, a brief history of both sources of the data base is reported here.

History of EJC

In the introduction to the *EJC* the editors explain that at one time two thesauruses were being compiled simultaneously: an *EJC* revised edition of *Thesaurus of Engineering Terms* and a Department of Defense *Technical Thesaurus*, under Project LEX. The large number of related and overlapping interests encouraged a merger, and, therefore, the *EJC* is a joint effort.

One of the objectives of the *EJC* is to produce a comprehensive thesaurus of scientific and technical terms for use as a basic reference in information storage and retrieval systems and to provide a “vocabulary” groundwork.

In gathering the terminology they consulted 350 subject indexing vocabularies, thesauruses, glossaries, and other specialized lists. Final selection of terms was made by important concepts relating to a given scientific or technical subject and then determining the most appropriate terms to present the concept. These concepts and terms were weighed by (1) usefulness in communication, indexing, and retrieval; (2) number of sources and the frequency of use in indexing by these

sources; and (3) acceptability as technical terms. The final list includes 23,364 separate main entries, 17,810 descriptors, and 5,554 *use* references.

A main purpose of the thesaurus is to deal with factors of ambiguity (these they describe as being created by synonyms, homographs, differences in spelling, word forms, and hierarchial treatment) by establishing a standardized, authoritative vocabulary. The basic principles of *Roget's Thesaurus* (grouping of words according to their "ideas") is still the underlying principle, except that Roget dealt in general with single words and this thesaurus deals with single concepts and then groups them in related areas. In the main body of the thesaurus all descriptors and *use* references are interfiled alphabetically and are shown with hierarchical structuring, cross-references, and scope notes.

The other two sections of the *Thesaurus* which were used in the data collection are:

The Subject Category Index, which is divided into twenty-two fields (according to the COSATI list), of which 1800-1811, Nuclear Science and Technology, were used. The first two digits indicate the field and the last two indicate the group within the field (this is an accumulation of all descriptors in a general subject area); and

The Hierarchical Index, which gives complete families of descriptors related by class membership. Descriptors with no given class membership do not appear here. Descriptors, which are heads of families and have no broader terms, but at least two narrower terms, are the guides. The most generic terms appear first with more specific terms below and indented to their respective hierarchical levels (see *EJC*, p.625 for complete panorama).

UDC

The FID/CR Conference at Elsinore in 1964 stated as its aims, among others:

1. The improvement of existing classifications, including work on methods for construction of thesauruses;
2. The exploration and implementation of compatibility among classification systems and thesauruses, including standardized vocabularies.¹⁰

The particular edition of UDC used for this paper was not affected by any suggestions that might have come out of that conference, but probably later editions have been. This special subject edition for nuclear science and technology was published in 1964 as an aid to classifying in detail all documents of interest to the field of nuclear energy. It contains the full schedules for such fields as nuclear physics and nuclear technology and extensive schedules in certain other scientific and technical fields but only a mere framework of such parts of the system that would not be of normal interest to services specializing in the nuclear energy field.

Class 6, Applied Science, is subdivided into ten classes, each of which is further subdivided into ten, and so on. The order of notation is determined by the fact that the numbers are considered to be decimal fractions—thus 6 becomes 62, 621 becomes 621.3, etc. For convenience a decimal point is *generally* inserted after every third figure.

There are several auxiliary features of this associative classification system.

1. If a term is not simple or clear cut, more than a simple decimal number may be required, in which case a fusion of two classifiable concepts may be denoted by linking the appropriate main numbers by a colon sign for relationship.

Example: 620.179.15	Irradiation methods
539.128.4	Alpha particles
620.179.15:539.128.4	Alpha particle irradiation

2. A detailed element or aspect of a main subject may be expressed by an auxiliary notation added to the simple decimal number for the main subject.

Example: 539.12.04	Effects of radiation
539.12.04.004.6	Radiation damage

These .001–.009 numbers provide a distinct but comprehensive approach to the whole field. Some such auxiliaries are applicable throughout the system, others within certain parts of the system only.

3. Auxiliaries and compound numbers which are used as a means of eliminating repetition in tables (but are not used for concepts which can be denoted by a single main number or by two numbers linked by a colon) are also used.

Example: 62	Engineering and Technology
62-79	Measuring or counting devices in Engineering and Technology
621.039.54	Fertile materials
621.039.54-79	Fertile material measuring devices

There are other auxiliaries which may be used with UDC but which are not explained here because this research did not lead into any of those divisions.

These concept combinations are valuable features in the UDC system. It has been able to maintain universality in the sense that it permits almost any desired combination and modification of basic numbers to denote the most complex subjects.

To summarize the two systems, they are similar in one approach: the structure of UDC shows word associations by means of hierarchies leading from generic terms to more specific terms at various levels. It is a structure which imposes the problem of terms that may fall into more than one class. The thesaurus actually does the same thing but also draws on the alphabetical array of the subject heading list which

provides word associations and *broader term*, *narrower term*, *see*, and *use for* structure.

Data Collection Methods

The 1800 group of numbers in *EJC* is "Nuclear Sciences and Technology" and is divided into nine fields containing 334 terms. Each of these 334 primary terms was recorded on 4x6 cards. The following steps were then followed in collecting further data.

Phase I.—These 334 terms were checked in the main thesaurus to determine if there were *use for* terms, *broader* terms, *narrower* terms, or *related* terms. All terms in those categories were recorded on the cards under the primary terms. There were 49 *broader* terms which were collectively recorded 491 times, 98 *use for* terms, and over 800 *related* terms.*

Phase II.—The next step was to check the UDC Alphabetical Index which, incidentally, states: "Never classify solely from the index. The function of the index is to locate specific topics and to display related aspects not brought together in the classified tables."¹¹ If a term was found which exactly matched the term recorded from *EJC*, the term and classification number were recorded and then the schedules were checked to make sure it covered the pertinent concept. If it did, no further searching was done.** The next step, if an exact match in the index was not found, was to go to the schedules in the general areas of the term concept and search for it there. Again, if it was found, no further searching was done.

Next, for all terms for which no direct match was found but for which there were *use for* terms in *EJC*, those *use for* terms were checked, first in the index and then in the schedules, and if a match was found, the search stopped there.

Another possibility for a match or a near match was by utilizing auxiliaries in UDC to produce the correct term for the concept. Most of the time this was covered in the index but some of the time it was listed under one of the two numbers, if there was a relation (:) to be used. Again, if there was a match or near match, both the term and the UDC number were recorded.

Finally, there was a group of terms for which there was no match or near match. A search was made to try to find a concept for these in UDC. If the search was successful, that number and the term used were recorded.

After all of these steps were completed, there was a residue of terms

* It was later discovered, when classification numbers were being assigned to these terms, that the idea of including the RELATED terms in these data would have to be abandoned because the UDC schedule being used was too specialized and could not adequately handle RELATED terms which went into concepts other than those covered in this special edition.

** I discovered only too soon that the index is not a good classification tool when I came upon several terms in the schedules which were not listed in the index.

from *EJC* for which no concept could be found which adequately covered the topic. These were simply recorded as dashes on the data sheets (see sample in appendix).

Summary

The following charts show the relationship, both number and percentage, between the terms in *EJC* in nuclear sciences and technology and those in *UDC Special Subject Edition for Nuclear Science and Technology*.

The categories are:

Category I: Terms exactly match.

Category II: Terms match when additional directions are given (either term was exact in UDC Index but varied somewhat in the schedules; or the USE FOR term in *EJC* was the same as the term located in UDC).

Category III: Terms differ (but concept easily located in UDC, thus a term and classification number were assigned).

Category IV: Term does not appear in UDC (and no concept was located—that is not to say that it is not there, but that if it is there, it is not easily locatable).

Charts 1 and 2 show the PRIMARY terms, which were the main concern of this paper, and the BROADER terms.

Charts 3 and 4 show the percentages of each group by category.

Conclusions

I have explored the possibilities of merging the terminology of two different systems—the UDC, a classification of documents system, and the *EJC*, a classification of concept-terms (concepts being classified by terms which determine the structure of the system). There has been no attempt, in this paper, to analyze the generic relations of terms in UDC and *EJC*, simply a statement that the terms do exist.

UDC was, of course, not constructed as a term list and some terms may occur ten times or more, whereas a number of important terms are missing. For instance, the class of electromagnetic radiation is missing from this edition of UDC. On the other hand, as Vickery points out, an advantage of UDC as opposed to special subject schemes is that it repeats a term in each of its aspects thus locating it in a number of classes. "For example, 'dust' appears in UDC as a general occupational hazard (613.663) and as a hazard specific to engineering (621-784) and mining (622.87); as an air pollutant generally (614.715) and in mines (622.411.5); as an industrial nuisance (628.511) and a target for ventilation (697.98); and as a fluid to be distributed (621.6.04)."¹²

UDC offers general and sometimes inadequate places for some concepts listed in *EJC* and some terms are used with ambiguous meaning. UDC is very well suited for some particular fields of nuclear science

CHART 1
PRIMARY TERMS

EJC Class Number	Total Terms in That Class	Number in Categories			
		I	II	III	IV
1802	153	112	6	26	9
1803	8	2	1	3	2
1804	25	14	3	8	0
1806	12	2	1	9	0
1807	4	1	1	2	0
1808	27	8	10	9	0
1809	46	21	7	18	0
1810	50	6	24	20	0
1811	9	2	1	6	0
Total	334	168	54	101	11
Percentage		50%	16%	30%	4%

CHART 2
BROADER TERMS

EJC Class Number	Total Terms in That Class	Total Number in Categories			
		I	II	III	IV
1802	8	4	0	2	2
1803	5	1	0	4	0
1804	6	4	1	1	0
1806	6	3	0	3	0
1807	3	0	0	3	0
1808	9	3	1	5	0
1809	5	2	1	2	0
1810	1	1	0	0	0
1811	6	1	0	5	0
Total	49	19	3	25	2
Percentage		39%	6%	51%	4%

(see chart 1). Out of a total of 153 terms, UDC and *EJC* match exactly in 112 terms, and an additional six matches, either through a USE FOR term in *EJC* or an auxiliary approach in UDC, can be made.

Critics of UDC have stated that a barrier exists between science (54) and technology (62) in UDC. This is true, and there is also evidence of overlapping. For instance, the application of 546.02 for Isotopes and 621.039.8 for Isotope Application allows for arbitrary decisions in assignment of numbers.

In general, evidence indicates that, with updating of the terminology, which supposedly the newer editions do have, UDC can be used

CHART 3
PRIMARY TERMS

EJC Class Number	Total % of Terms in That Class	Total Percentage in Categories			
		I	II	III	IV
1802	46%	73%	4%	15%	8%
1803	2%	25%	13%	37%	25%
1804	8%	56%	12%	32%	0
1806	4%	17%	8%	32%	0
1807	1%	25%	25%	50%	0
1808	8%	30%	40%	30%	0
1809	14%	46%	15%	39%	0
1810	15%	12%	48%	40%	0
1811	2%	22%	11%	66%	0

CHART 4
BROADER TERMS

EJC Class Number	Total % of Terms in That Class	Total Percentage in Categories			
		I	II	III	IV
1802	16%	50%	0	25%	25%
1803	11%	20%	0	80%	0
1804	12%	66%	17%	17%	0
1806	12%	50%	0	50%	0
1807	6%	0	0	100%	0
1808	17%	33%	11%	66%	0
1809	10%	40%	20%	40%	0
1810	4%	100%	0	0	0
1811	12%	17%	0	83%	0

effectively as a term system for nuclear science and technology. Even if the terminology is not changed in the later editions, the hypothesis is fairly strongly supported by the large percentage of matching terms in the two systems.

The next step, then, would be for a major move to be made, as Freeman recommended (see reference 7), by UDC in cooperation with a respected thesaurus—this being *EJC* as has been proposed in this paper—to coordinate the terms and merge a major thesaurus with an effective classification scheme of international scope to provide a much-needed tool in the area of classification and documentation.

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mental Concepts and an Outline of a Variant Adapted to Technology," *Journal of Documentation* 4:173-86 (1963).

APPENDIX

SAMPLE: EJC CLASSIFICATION AND TERM (1803) NUCLEAR EXPLOSIONS	UDC CLASSIFICATION AND TERM 55	<i>Geology and Meteorology</i>
Afterwinds (Also under (1506))	—	—
Artificial radiation belts (Also under (0401); (1506); BT: Earth atmosphere (0401) BT: Radiation belts (0401))	551.510.72	Artificial radioactivity
Fallout (Also under (1808); (1506))	551.51 551.510.7	Structure of the atmosphere Radioactivity of the atmosphere
Nuclear clouds (Used for Atomic clouds; Also under (1506))	551.510.721: 614.73	Fallout
Nuclear Excavation (Also under (1302); BT: Excavation (0809); (1302))	551.578	Radioactive precipitation
Nuclear explosion effects (Used for Nuclear explosion damage; Nuclear weapon effects; Also under (1506); BT: Explosion effects (1904))	550.378	Nuclear processes in the earth
Nuclear fireball (Used for Fireball (nuclear blast); Also under (1506))	550.3 539.12.04: 623.454.8	Geophysics Nuclear weapon effects
Nuclear explosions (Used for Air nuclear explosions; Atomic explosions; High altitude nuclear explosions; Low altitude nuclear explosions; Surface nuclear explosions; Underground nuclear explosions; BT: Explosions (1904))	614.83	Explosions (accidents)
	—	—
	621.039.9	Nuclear explosions (Peaceful use)
	541.126	Explosions

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9. *Ibid.*, p.106.
10. Pauline Atherton, ed., *Classification Research; Proceedings of the Second International Study Conference* (Copenhagen: Munksgaard, 1965) .
11. International Federation for Documentation, p.43.
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IN THE MAIL: DIVIDED CATALOG AT THE UNIVERSITY OF CHICAGO

My article on the dictionary catalog (*LRTS* 15:28-33, Winter 1971) stated that the University of Chicago once had a divided catalog. I have learned that this was not the case.

Viola Gustafson, the head of the University of Chicago Catalog Department writes me that:

"So far as anyone here knows, the University of Chicago has now and has always had a dictionary catalog. The statement by James McGregor in his article, 'In Defense of the Dictionary Catalog,' in vol. 15, no. 1, winter, 1971 of *LRTS*, is erroneous, as is the source of his information—an article by V. J. Burch in *College and Research Libraries*, June, 1942, p. 219-223. Mr. Burch misinterpreted a direct quotation from an article by Winifred VerNooy which appeared in 'The Acquisition and Cataloging of Books,' edited by W. M. Randall, p. 310-330. Miss VerNooy's statement: 'after struggling for years to explain the [filing] system and to train users in finding of entries under three alphabets, the cards were filed all together in one alphabet, absolutely word for word.' This simplification of filing rules, effected sometime in the 1930's involved combining cards under place names only, into one sequence, eliminating the distinction between so-called 'official' and 'non-official' entries and titles. As I recall, the process was time-consuming but the 'enormity' of the catalog to which Mr. McGregor refers was considerably less formidable in the 1930's than it is today."

I might add that the University of Chicago's nonexistent divided catalog was again mentioned in *LRTS* in 1958 (Dorothy Grosser, "The Divided Catalog: A Summary of the Literature," *LRTS* 2:238, Fall 1958). I want to thank Miss Gustafson for putting to rest this legend which has stood unchallenged in the literature for almost thirty years.—James Wilson McGregor, Head, Catalog Dept., Northeastern Illinois State College, Chicago.

CATALOG CARD QUALITY

Test performances of library catalog cards made of highly purified chemical wood fibers are comparable to those of library catalog cards with 100 percent rag content. This claim was established recently in tests conducted by an independent paper testing laboratory under contract to *Library Technology Reports*.

In order to determine the quality of library catalog cards sold by the leading library supply companies, the editors contracted with a laboratory to have the American National Standard for Permanent and Durable Library Cards, Z85.1 applied to a group of twenty-four top of the line catalog card stocks. Test results published in the January 1971 issue of *Library Technology Reports* show a wide variance in quality among similarly priced cards, as well as the comparable test performances by the all-rag content and the purified chemical wood fiber content cards.

Though most of the companies included in the test program were represented on the American National Standard's Committee on Standardization of Library Equipment and Supplies Z85 which drafted this standard, not one of the card stock samples tested satisfied all provisions of the standard.

The cost of laboratory testing was paid by a grant from the Council on Library Resources, Inc. The thirty-seven-page report consists of the Standard itself, the laboratory test results, and editorial comments.

ERIC/CLIS ABSTRACTS

Selected and edited by ROBERT WEDGEWORTH

The following abstracts are based on those prepared by the Clearinghouse for Library and Information Sciences of the Educational Resources Information Center (ERIC/CLIS).

Documents with an ED number are available in the format specified—microfiche (MF) or hard copy (HC)—from:

ERIC Document Reproduction Service
LEASCO Information Products, Inc.
P.O. Drawer O
Bethesda, Maryland 20014

Payment must accompany orders totaling less than \$10.00. Book rate or library rate postage is included in the quoted price. Order blanks containing further information may be obtained from LEASCO Information Products.

Wellisch, Hans. *The Universal Decimal Classification; A Programmed Instruction Course*. 1970. 195p. HC \$3.50 (Student Supply Store, University of Maryland, College Park 20742).

Institution: Maryland Univ., College Park, School of Library and Information Services.

Provides an application of programmed learning to the teaching and study of classification and indexing. It is aimed at students in library schools to familiarize them with the principles and techniques of the Universal Decimal Classification (UDC). The book can also be used as a manual for self-instruction in UDC for those unable to receive formal training. The user is led through the task of classing documents as they are actually encountered in existing libraries and information centers. The selected titles represent a cross-section of subjects and every main class of UDC is represented in proportion to its significance and extent in the scheme. Filing of classified entries is treated briefly.

Stuart-Stubbs, Basil. *The New England Deposit Library and the Hampshire Interlibrary Center. A Survey of Two Storage Libraries Performed for the University Libraries of British Columbia*. 1970. 31p. ED 046 478. MF \$0.65, HC \$3.29.

Institution: British Columbia University, Vancouver, Library.

The New England Deposit Library (NEDL) is a storage library in which the participants rent space; revenue from rents supports the operation of the library, and varies according to the space held on behalf of each participant, whether occupied or not. NEDL does not own its collections, but merely stores them—there is no common use. The Hampshire Interlibrary Center (HILC) is a jointly owned library of research material, supplementing the resources of the individual participants. Each participant pays an equal share of the operating budget. HILC owns its collections, which are loaned to the participants. The operation, facilities, costs, and services of each of these libraries are explored in order to determine which features might be suitable for British Columbia where, within a decade, the three university libraries will have grown beyond the capacity of present and projected library buildings. It is unlikely that microform or computer technology will soon provide an economic alternative to physical volumes as a means of storing knowledge.

Hopkins, Judith. *Manual for OCLC Catalog Card Production*. Revised and enlarged. February 1971. 69p. ED 046 471. MF \$0.65, HC \$3.29.

Institution: Ohio College Library Center, Columbus.

The Ohio College Library Center (OCLC) is a computerized regional library center serving the academic libraries of Ohio, both state and private, in order to increase and make more efficient use of bibliographical resources. The program has five major components: (1) shared cataloging, (2) bibliographic information retrieval, (3) circulation control, (4) serials control, and (5) a technical processing system. This manual revises and expands the information in two previous manuals, the "Preliminary Description of Catalog Cards Produced from MARC II Data," issued in September 1969, and the "Instruction Manual for Catalog Production," issued in February 1970. The manual also calls upon material in various memoranda issued by OCLC. Part I of this manual is a detailed description of the catalog cards produced. While subject to continuing revision to better satisfy user needs, it describes the output that will be available from the on-line system which will be implemented in summer 1971, as well as from the present off-line system. Part II, which describes the procedures for requesting catalog cards, is applicable to the off-line system only.

Rockwood, Ruth H., ed. *Personnel Utilization in Libraries, Selected Papers*. 1970. 114p. ED 046 464. MF \$0.65, HC \$1.50. (School of Library Science, Florida State University, Tallahassee 32306.)

Institution: Florida State University, Tallahassee. School of Library Science.

Papers presented at an institute conducted by the School of Library Science, The Florida State University, and the Florida State Library, October 6-10, 1969. The papers are broadly grouped into three categories: (1) changing attitudes toward personnel administration, (2) procedures for selecting middle management, and (3) ways and means of developing effective leadership. The premise is that shortages in library personnel exist at all levels, but especially in the middle management positions. Inefficient use of personnel have kept libraries from providing the best possible services to individuals and communities. This publication is directed to professional librarians with management experience and administrative responsibilities for developing personnel to show them how to better use their staffs to improve the library.

Heilprin, Laurence B. *An Experimental Copyright Moratorium: Study of a Proposed Solution to the Copyright Photocopying Problem*. Final Report to the American Society for Testing and Materials (ASTM). July 1970. 60p. ED 045 110. MF \$0.65, HC \$3.29.

Institution: Committee to Investigate Copyright Problems Affecting Communication in Science and Education, Bethesda, Md.

The Committee to Investigate Copyright Problems (CICP), a nonprofit organization dedicated to resolving the conflict known as the "copyright photocopying problem" was joined by the American Society for Testing and Materials (ASTM), a large national publisher of technical and scientific standards, in a plan to simulate a long-proposed solution to the problem. This is a nonprofit, voluntary system of access-permissions-and-payments called a copyright clearinghouse (CHC). A moratorium contract between ASTM and its client organization guaranteed against infringement in making up to fifty multiple copies at a time of any ASTM publication. In return these organizations supplied CICP with data for analysis of their copying. Both CICP and ASTM pledged their support for transforming the experiment into a permanent, national CHC. At this point government support for CICP suddenly ended. CICP became inactive, while volunteers in ASTM, CICP and elsewhere carried on the reduced and modified collection and analysis of moratorium data. This report analyzes the data obtainable, finds a number of facts useful for copyright and CHC economics,

and supports the hypothesis that such a system would largely resolve the copyright photocopying problem. A renewed effort is recommended, starting with more extensive and intensive studies.

Tom, Ellen, and Reed, Sue. *SCOPE in Cataloguing*. June 1970. 54p. ED 045 108. MF \$0.65, HC \$2.50 (University of Guelph Library, Guelph, Ontario, Canada).

Institution: Guelph University, Ontario. Library.

Describes the Systematic Computerized Processing in Cataloguing system (SCOPE), an automated system for the catalog department of a university library. The system produces spine labels, pocket labels, book cards for the circulation system, catalog cards including shelflist, main entry, subject and added entry cards, statistics, an updated master file in machine-readable form, and an accession file. A preliminary cost study revealed an approximate saving of \$19,000 per year based on 1,000 titles per week, with an approximate cost of \$.80 per title. This cost, however, does not include the actual cataloging procedure. All programs are written in COBOL and the system is run on an IBM Model 50 computer equipped with eight tape drives, two 2,314 random access devices, and 512K core. The system itself uses a maximum of four tape files, three disk files, and 160K core.

Leonard, Lawrence E. *Cooperative and Centralized Cataloging and Processing: A Bibliography, 1850-1967*. July 1968. 92p. ED 044 152. MF \$0.65, HC \$3.29.

Institution: Illinois University, Urbana. Graduate School of Library Science.

Nine hundred and fifty-four references to articles on cooperative and centralized acquisitions, cataloging, and processing, covering the period from 1850 to 1968, are included in this bibliography. Subject elements of the bibliography by the approximate date of appearance are (1) Cooperative cataloging—1850-; (2) Centralized cataloging (Library of Congress card service—1900-; other centralized cataloging—1928-); (3) Centralized purchasing—1919-; (4) Centralized processing—1948-; and (5) Cataloging-in-source—1958-1965.

Woods, Julia A. *The Periodical Bank Through 1969 and the First Fiscal Year Annual Report*. Revised edition. August 1970. 55p. ED 044 127. MF \$0.65, HC \$3.29.

Institution: Associated Colleges of the Midwest, Chicago, Ill.

Twelve colleges incorporated under the Associated Colleges of the Midwest (ACM), began a library cooperative program to establish a Periodical Bank. The prime purpose of the bank is to provide college students and faculty access to a larger number of periodicals than could be provided by their individual libraries. Under the proposed plan, each ACM library was to sell paper backfiles (periodical) up to a total of \$50,000 which would be assigned to the Service Library and Periodical Bank. \$440,000 of the total would be used to purchase commercially available periodical backfiles in microforms. The libraries, on the average, have doubled their periodical holdings through the bank at a fraction of the cost each would usually incur for such acquisitions.

Croghan, Antony. *A Thesaurus-Classification for the Physical Forms of Non-Book Media*. 1970. 47p. HC \$3.00 (Author: 17 Coburgh Mansions, Handel St., London, W.C. 1).

Attempts to demonstrate a method of controlling and organizing an indexing language for the physical forms of nonbook media. The classification is based on the technique of facet analysis. It comprises a classification of the concepts of the subject

with an alphabetical listing of the verbal descriptions of the subject. The link between these is provided by a numerical notation that acts as a short code statement for these concepts and descriptions. The basic groups within this classification are as follows. Visual media are divided into moving media and still media; within the still media is the special medium consisting of objects that deal with geography. These are followed by the nonvisual media, which are divided into sound media and those media used by information machines, e.g., punch cards, magnetic tapes, etc. Finally, there are the programmed media, e.g., a scrambled book or computer-programmed instruction.

Reichmann, Felix, and Tharpe, Josephine M. *Determination of an Effective System of Bibliographic Control of Microform Publications*. Interim Report. November 1970. 51p. ED 046 404. MF \$0.65, HC \$3.29.

Institution: Association of Research Libraries, Washington, D.C.

Sponsor: Office of Education, Washington, D.C. Bureau of Research.

Provides some guidelines for the bibliographic control of microforms which at the present time is either inadequate or nonexistent on a local level within a given library. A literature search and direct inquiry of librarians revealed that adherence to cataloging rules is inconsistent. There is wide variation in microform classification. Microform listing in public catalogs is unsatisfactory. Guides for microform holdings are not widespread or standardized. Microforms are universally shelved separate from the book collection. Microform service is assigned to professional librarians infrequently. U.S. librarians are dissatisfied with their own lack of bibliographic control and the "National Register of Microform Masters" is neglected. The report lists recommendations for alleviating these problems.

CORRECTION IN ERIC/CLIS PRICE SCHEDULE

In the Spring issue of *Library Resources & Technical Services* (page 254) the editor regrets that an error appeared in the new price schedule for all documents announced in *Research in Education*. The price for microfiche is \$0.65 per title. The price for hard copy is \$3.29 for each 1-100 page increment.

REVIEWS

Harris, Jessica Lee. *Subject Analysis: Computer Implications of Rigorous Definition*. pref. by Maurice F. Tauber and Theodore C. Hines. Metuchen, N.J.: Scarecrow Press, 1970. 279p., index, biblio., appendixes. \$7.50. ISBN 8108-0313.5; LC 70-16406.

A system of subject analysis is one of the major links between the searcher and the file of any information retrieval system. Yet it seems that there is a genuine need for systematic study and research in this area. Dr. Harris' book provides a fair beginning. Her major thrust is in urging the establishment of a comprehensive code for the practice of subject heading. However, before a standardization can be devised, organized investigations of the existing practices should be made to determine the various elements involved, their functions, and the complexity of the entire structure. Her work proposed to "provide descriptions of present subject heading practice in certain important areas, based on a belief that it is not useful to propose new practices without determining the value of the old."

The book can be divided into three parts. The first consists of a brief historical survey and review, an analysis of the scope of the problem, and an outline of her areas of research. The middle portion contains detailed descriptions and results of experiments executed to test her six working hypotheses. The concluding chapter reiterates the background and the basic assumptions for the study, and it summarizes the findings of each set of inquiries, and makes recommendations for future research.

Harris raised the question of the

purpose and the function of the system which is vital to any systematic analysis of a complex problem. . . . As expected, our "conception of purpose or definition of function which underlies our practice is little more than tradition or folklore at best." Information of indicated need can only be obtained by investigation of use made of the system. There is a critical need to improve on the technique of investigation so as to supply us with more precise and accurate knowledge.

An abundance of facts is present in this study. The author has succeeded in providing concrete evidence for some of the long-held beliefs regarding the subject catalog. Most of her test samples are taken from the Library of Congress subject heading list and card catalog. Thus a partial elucidation of one of the most complex operating systems of subject heading is made possible.

One of the several outstanding results is that the subject headings applied by LC and by the Wilson Company to the same book show no difference in scope. Therefore the broadness of headings is the same whether the book is intended for large libraries or for small libraries. It also appears that some aspects of cross-referencing can be made clerical routines. Aspect subdivision and form subdivision are treated in separate chapters. This is an excellent approach; however, both chapters are bogged down by statistical analyses which are difficult to follow. The chapter on subject heading styling for computer arrangement seems to avoid the entire question of semantics, which in most cases has to be dealt with before styling can even be taken into consideration.

The organization of the book is ex-

cellent. Summaries at the end of each chapter allow the reader to skip details of the experiments and analyses if he chooses to do so. In a study utilizing massive data it is understandable that omission of any part of the actual analyses seems difficult for the investigator. However, a judicious trimming of some details might have displayed the facts more succinctly.

The implications of computer applications in cataloging and subject assignment should accelerate the call for a formal comprehensive code for subject heading. We are happy that Dr. Harris has taken a major step in this direction.—*Miranda L. Pao, Case Western Reserve University, Cleveland, Ohio.*

Kenneth Plate. *Management Personnel in Libraries; a Theoretical Model for Analysis*. Rockaway, N.J., American Faculty Press, 1970. 100p. \$7.95.

"Using a broad sociopsychological theory of individual accommodation to the conditions of modern organization (this study) attempts to explain the behavior of a sample of middle-level executives in several university libraries." (*Introduction*, p.viii) Taking the three bureaucratic types—upward-mobiles, indifferents, and ambivalents—identified by Robert Presthus in *The Organizational Society* as a model, Plate interviewed seventy-seven middle managers (defined as those supervising four or more professional librarians) in fifteen ARL libraries in the northeastern United States in the fall of 1968. On the basis of those interviews he identified and here describes three ideal types: the specialist, the executive, and the technocrat. His brief summary sketches of those three types, all sub-categories of Presthus' upward-mobiles, are thumbnail portraits of librarians we all know. Finally, he suggests further research which might be done to validate his models and to examine some of the variables that may affect them. Within the limitations of geog-

raphy and numbers the study seems to have been fairly carefully conducted, and the identification and description of those three types of middle managers seem reasonable.

Like a growing number of research studies in librarianship, this work (a version of a dissertation at Rutgers) attempts to apply theories developed in other disciplines to librarianship. Typically, it also treats with disdain the quality of the literature of librarianship and deplores the lack of "research" in the field. There is certainly something to be said for the latter view and much of the work being done in other fields, such as public administration and sociology, can undoubtedly be applied to librarianship with much profit. It points up, however, a serious question. Can doctoral students in library schools attempting to apply the work of other disciplines to librarianship obtain the breadth and depth of knowledge of those fields that is needed to do so successfully? The answer is probably not. It would seem far more satisfactory to encourage those students to pursue a Ph.D. in another discipline where they will be exposed to an entire field of knowledge rather than to pursue a Ph.D. in librarianship where they are likely to be exposed only to a smattering of knowledge from other fields by faculty members who may not themselves be well qualified. Plate's study raises this question very directly for, as Presthus points out in his introduction to this book, his theory is designed for *large organizations* ("bureaucratic systems large enough to prevent face-to-face interpersonal relations among most of their members"); he wonders also whether or not university libraries are large enough to meet "this vital structural assumption." Plate accepts this as a possible weakness of his study but simply says that "considerations of bigness, at least in terms of validating the appropriateness of the libraries studied here, are not included in the present study."

(p.46) The validity of the whole approach must be questioned on this basis alone, especially when one library (presumably Harvard) is excluded on the grounds that "its uncommon size rendered it atypical."

What value has such a study, if its results are valid, for the profession? In theory, a good deal. If it accurately describes the types of individuals to be found in certain key positions in academic libraries then it should be of value to all who have to deal with the individuals occupying those positions. Unfortunately, this study also reflects one of the major weaknesses of most theoretical research studies of this kind—an inability to perceive how a situation is changing. In this study there is almost no awareness of the changes that are beginning to take place in academic library administration and of how these changes are affecting the relationships which the study treats. It is, for example, increasingly inaccurate to ascribe to the middle manager an "extraordinary amount of influence on the behavior and attitudes of subordinates." (p.4) Whether or not, for example, the middle manager now views the new professional staff member as an intern or as a professional may not matter, for the new and better professional now demands to be treated as an equal, and he looks for his models not necessarily to the middle manager (who may happen to be his immediate supervisor) but to other professionals, either within or without his library, whose attitudes and values he respects. Increasingly too, the role of the middle manager is deteriorating as new techniques of management are introduced which involve a less bureaucratic and more professional style with increased participation from staff at all levels. As a study of the individuals characterizing a particular type of management described at what may be the end of its development and towards the end of the professional career of many of its practitioners, this study has some in-

terest and value. As a useful guide to current practices and styles of management, it is of limited value, and the suggested areas of further research are likewise of extremely limited value. Since a large portion of this book is devoted to a description of the methodology of the study, it might better, like most doctoral dissertations, have been left to the decent obscurity of *Dissertation Abstracts* and University Microfilms with the results being summarized in an article in *College & Research Libraries*.—Norman D. Stevens, Associate University Librarian, University of Connecticut, Storrs.

Library of Congress. Information Systems Office. *Format Recognition Process for MARC Records: A Logical Design*. Chicago: American Library Association, 1970. Various pagings, paper, \$10.00.

This report describes in detail a logical design of a format recognition process for MARC records of current English-language monographs. As a manual of instructions, it includes step-by-step processing procedures, necessary algorithms, flow charts, keyword lists, and descriptive data. Therefore, it is of practical use not only to the MARC/RECON staff within the Library of Congress but also to librarians, systems analysts, and computer personnel directly involved in using MARC tapes. As an information manual, it should be of interest to other librarians and their associates who follow the progress of the MARC/RECON activities and to those responsible for the teaching of courses in cataloging, library automation, and related topics.

Format recognition is a technique designed for the computer analysis of records; in this case, bibliographic records. The purpose of the format recognition program designed at the Library of Congress is to eliminate the need for tagging and other descriptive

annotations now provided by catalogers, editors, and the content edit program, and also to format and assemble the MARC record now done by the format edit program.

The MARC record format described in this manual is the Library of Congress MARC II Internal Processing Format, a master record format used internally at the Library of Congress. It is from this format that the MARC II Communications Format records used in the MARC Distribution Service are derived. The major differences between the two formats as well as a short description of the internal processing format are given.

The bibliographic content of a MARC record is derived from an LC manuscript card produced during the normal cataloging process; hence, the contents are essentially the same as those which appear on a printed catalog card. To convert this basic record into usable and useful machine-readable form, it is necessary to "edit" the record. Editing requires the checking of appropriate fixed fields and the addition of tags to identify the variable fields, indicators to provide additional information about a field, delimiters to separate data elements within a field, and subfield codes used in conjunction with delimiters to identify the individual data elements.

In the early days of editing every fixed field entry, tag, indicator, delimiter, and subfield code had to be entered by either a cataloger or an editor. As refinements were made in the processing, it became possible to transfer some portions of the editing to the computer. However, the format recognition program is a large-scale effort to eliminate most of the human editing and to transfer this responsibility to the computer. The project is, of course, far from complete. The algorithms included here concentrate on current English language monographs, but plans include required modifications and additions of these algorithms to

handle other Roman alphabets and retrospective records. Evaluations are continually in progress, and as is common practice in large-scale operations of this type, different steps in the total program are going on simultaneously.

According to a statement in the introduction, the initial efforts in testing the format recognition program assumed no human editing. However, the efficiency of having the computer automatically determine a condition that rarely occurs is under question, and an evaluation is in progress. The following statements give some indication of the anticipated results: ". . . it is felt that the results will demonstrate the need for records partially edited by humans plus the format recognition process to complete the full editing. The amount of human involvement is not yet known, but whatever it may be, cost savings in terms of manpower should be significant." An early statistical analysis of the records indicated that about 67 percent of the records processed by format recognition with no previous human editing should be error free.

The technique of format recognition represents a major breakthrough in taking advantage of computer capabilities to reduce, if not to eliminate, a variety of tedious, error-prone, costly tasks now performed by humans. The verification/correction cycle remains the same so that final proofing or inspection of each record before it is added to the permanent data base continues to be the responsibility of the MARC editors. A great deal of credit must go to the MARC/RECON staff for an achievement which at one time some considered impossible.

The details given in the manual are presented in an orderly fashion and should be reasonably easy to follow for those familiar with the MARC II format. The copy is typed double-spaced and the flow charts are written in longhand; these do not detract particularly from the readability of the

report, except for numerous typing errors. The price of \$10.00 seems to be too much for a manual of this type.—*LaVahn Overmyer, School of Library Science, Case Western Reserve University, Cleveland, Ohio.*

Dougherty, Richard M., and Leonard, Lawrence E. *Management and Costs of Technical Processes: A Bibliographical Review, 1876–1969*. Metuchen, N.J., Scarecrow Press, 1970. 145p. \$5.00. ISBN 0-8108-0320-8.

This is a bibliography listing 853 entries relating to costs and management in library technical services. It is not annotated. However, the authors have marked those items which they especially recommend and those which include explanations of methodological techniques. The majority of the works cited were published in the U.S., and all except seventy entries are in the English language.

The authors point out that their initial intention was to include only cost studies in their literature search. Having found few items available on so restricted a subject, they decided to include publications and articles *relating* to cost studies, such as work simplification, methodology, standards, and cost effectiveness. In date of publication, works range back to those covered by Cannon's *Bibliography of Library Economy* and forward through 1969. Where the items available make it useful, the citations under each subject are divided into two subsections: historical (1876–1945) and current (1946–1969). The dividing date was selected because the compilers found evidence that the demands resulting from World War II had speeded up the application of analytical study techniques in libraries.

The book includes a twenty-five-page essay, "The Evolution of Library Cost Studies," which traces the situation in this country from concern supported by little precise information in

the late nineteenth century through the informal collection of data during the first part of the twentieth century, the awakening interest of the thirties, the enormous boost given such considerations by the demands of World War II, to the recent impetus growing out of automation. This historical survey again points up the scarcity of cost information and the slowness of librarians to develop bases for gathering comparative data. The book as a whole shows that such a gathering is needed and possible, and points to the starting point in each aspect of the topic.

Publication of such a bibliography generously shares with everyone the results of the considerable amount of work done by the authors in selecting from library literature the items relating to costs and management in technical services. Such a listing, divided by subject, can be a more revealing and convincing statement of the condition of the profession's progress in the area than a narrative assessment of it. Assuming that the authors found most of the items which are available (they included all of my favorites and used the sources most apt to be available to the practicing librarian and students of library science), then this classified list shows how little has been done.

Consider the topic, "Bibliographic Searching." This is a daily activity in most libraries, and much staff time is invested in it. Yet there are only four items listed, and only one of them includes an explanation of its methodological techniques to give the reader a usable grasp of the findings. None of the four earns the authors' special commendation. The need for cost information in standardized terms has been with us a long time. Meaningful comparisons of operations and methods can be predicted only on the availability of such information; and now the possibility of going into automation suggests that librarians require some cost information if they are to assess accurately the costs of the new system

and justify them in terms of new services.

Who can benefit from this new title? This is a book for the practitioner who needs information about a specific part of his operation, who wants to explore ways of simplifying procedures, or who wants to compare his costs with those of other libraries. This is a book for the novice offering any number of useful, fascinating, and absorbing series of readings on the topic of his choice. It offers anyone who is ready to work in the cost area the first step, that is, a listing of the items which should be examined to see what has been done. This is a book for the student of library science who has a specific assignment to cover or who is looking for project suggestions. This is a book for the browser, just as secondhand book-dealers' catalogs are for browsing. It offers item after item, gathered into related groups, each one rich in subject, personality, time associations, and sources. The longer you've been in the business, the more meat you will find packed into the items in the list.

And now for the quibbles. There are three symbols used in the bibliography. The key to them is hidden on page seven of the nine-page introduction. It would be more useful at the beginning of the bibliography, if not on every page. Also hidden in the introduction is a fourteen-item bibliography of bibliographies on the analysis and design of automated systems, useful to those who find it. Proofreading of the introductory material must have been rather casual, and the resulting errors may concern the user who would like to be able to trust the bibliographic details. An author index is provided at the end, but is it designated an *author* index? No.

This book is a by-product of the project which culminated in the Colorado Cooperative Book Processing Center. Complementary to it is an article, "Unpublished Studies of Technical Service Time and Costs: A Se-

lected Bibliography," by Mary E. Tesovnik and Florence E. DeHart (*LRTS* 14:56-67, Winter 1970). The RTSD Technical Services Costs Committee, starting about the same time the Colorado project received its first NSF grant, spent its early life finding that there was no easy approach to a long-neglected problem, but eventually clutched the Colorado project, and has begun to move more decisively. The results so far have been the Tesovnik-DeHart report and the enlisting of the interest of the ALA Library Technology Program in the possibility of developing data leading to technical processing standardized times. We are full of hope.

Perhaps we shall find that this book represents a watershed in the history of our concern for technical services costs and that the concern and scattered efforts of the past are about to move toward an organized and coherent body of standardized cost information applicable to any library technical processing operation.—*Helen W. Tuttle, Assistant University Librarian for Preparations, Princeton University, Princeton, N.J.*

Bernhardt, H. J. *A Report on the Role of Microforms in the University of Pittsburgh Libraries*. January 1970. 36p. (University of Pittsburgh School of Library and Information Science Monograph no. 3).

If the wisdom of the old saying, "a problem properly stated is half solved," is true, the future would appear to be more promising in the area of microform technology and its application to research libraries. The "problem" has been talked about for at least two decades, but only in the past year or two (stimulated by a relatively small investment by the U.S. Office of Education in studies managed by the Association of Research Libraries) has the problem been studied in depth.

In step with the new interest, this

study by Homer Bernhardt is an excellent, clearly written case study of the microform situation at a research library; it suggests directions for the future and recommends R & D projects for consideration by the Pittsburgh Library. Although a study of a specific library environment, the considerations and conclusions do possess general interest. Indeed, the study is well worth the time of a library administrator who is, or who should be, seriously concerned with current and future service of microforms in his library.

This study (and practical experience) abundantly demonstrates the problems emanating from the diversity of microforms which, unhappily, abound in our library collections. It is easy to agree with Bernhardt that the "self-service aspect of roll microfilm carries with it all the benefits of an open stock library." It is this aspect of microform service which stands in need of serious change, along with other factors of service, such as the reading equipment and bibliographic control. Although we can agree with many of Bernhardt's general comments and recommendations, this reviewer would caution readers regarding adoption of the recommendation that the Pittsburgh University Libraries "institute a program to create its own microforms." Let the uninitiated be warned not to enter lightly into such an effort. There is a substantial overlap between the discipline for producers of quality microforms and that of other published materials. The procedures and steps for producing high quality microforms, as with producing a high quality printed book, are many and they are not always obvious to the "micropublisher." We have all seen far too many amateurishly produced microforms of inferior quality. Let us in the library field continue to exploit good management techniques to control microforms in our research libraries.

This report can be obtained by writing to Mr. Thomas Minder at the

University of Pittsburgh Library.—
Charles G. LaHood, Jr., Chief, Photoduplication Service, Library of Congress.

Holmes, Donald C. *Determination of the Environmental Conditions Required in a Library for the Effective Utilization of Microforms.* [and] Reichmann, Felix, and Tharpe, Josephine M. *Determination of an Effective System of Bibliographic Control of Microform Publications.* Washington, D.C.: Association of Research Libraries, 1970. 90p. (price unavailable)

This two-part study is the result of a contract awarded the Association of Research Libraries by the Office of Education for the purposes of "identifying the chief problems inhibiting the full and effective use of microforms as instructional and research tools in libraries." The first part, by project director Holmes, discusses not only those environmental factors relating to the comfort and convenience of the user, but also those relating to the proper maintenance and servicing of microforms by the library staff. Guidelines are suggested for lighting, acoustics, temperature, air conditioning, and space requirements, as well as the arrangement of furniture and the correct method of coating walls and ceilings. There are also suggestions for the cataloging, inspection, reproduction, maintenance, storage, and handling of these materials. The highlight of the report is a series of sketches of a proposed microform carrel featuring a microform reader mounted on a revolving turntable which can be raised, lowered, or tilted to satisfy the desires of the user. Specifications are included. Appendixes list types of microforms, characteristics of films, desirable characteristics for readers and reader-printers, and a glossary of microform terms. Holmes stresses the point that the use of microforms by library patrons will

vary according to the attitude of the library staff toward the medium. He advocates thorough training of the staff, especially the chief librarian, in the understanding and use of microforms and the operation of related equipment. His premise that the "processing of microforms should enjoy equal priority with macroforms" is sound, but wouldn't draw much support from cataloging units now struggling to keep up with an ever increasing flood of macroforms unless it were accompanied by a plea for administrators to increase the size of their staffs proportionately with the amount of work generated by those seemingly innocuous microform orders.

The second part of the report does delve into the problems of bibliograph-

ic control of microform publications. It is an interim report consisting principally of the findings of the authors based on replies to inquiries addressed to almost 200 libraries. The findings summarize the various ways microforms are cataloged, classified, shelved, and shelved. Other topics include backlogs, special guides, and the supervision of the microform service. The authors found little enthusiasm for the inclusion of microform analytics in the MARC project or for filing analytics for monograph sets owned by the Center for Research Libraries. The investigation has also begun to extend to countries outside of the United States. There is a section summarizing the results of a 1963 UNESCO-Bibliothèque Nationale survey supplemented to a small extent by the current information gathered by recent inquiries. Of little consolation is the fact that bibliographical control on an international scale is in even worse shape than it is nationally. Finally, there is a list of recommendations the first of which gets right at the meat of the problem by stating that no microform project should be produced unless it is accompanied by adequately cataloged sets of cards. The authors also recommend the preparation of a Winchell-like guide to bibliographies of microforms and supplement this recommendation with an appendix showing samples of how different types of materials should be listed in the guide. There will be a final report issued in 1971. Even though the microform picture as a whole is gloomy it is encouraging to know that there are knowledgeable persons working on solutions which hopefully will be accepted by the majority of libraries. Both of these studies contain valuable recommendations for all librarians and especially library administrators to dwell upon if they plan on increasing their holdings of microform publications.—*Robert C. Farris, Purdue University Libraries, Lafayette, Indiana.*

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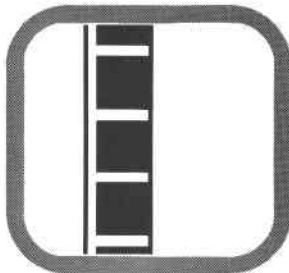
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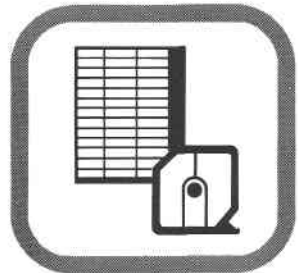
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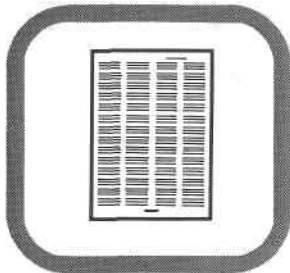
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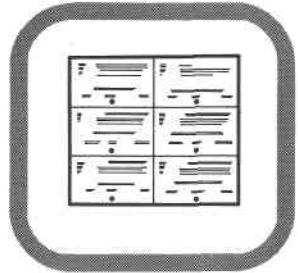
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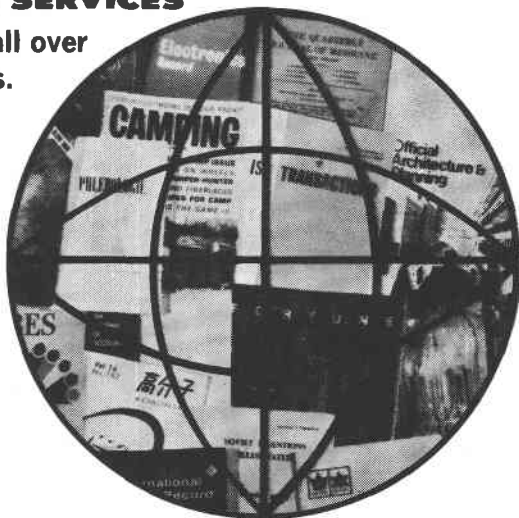
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